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THE
AMERICAN
JOURNAL OF INSANITY.

EDITED BY

MEDICAL OFFICERS OF THE NEW YORK STATE
LUNATIC ASYLUM.

VOL. XXXIII.

The care of the human mind is the most noble branch of medicine.—GROTIUS.

STATE LUNATIC ASYLUM.

UTICA, NEW YORK.

1876-77.

ELLIS H. ROBERTS & CO., PRINTERS,
HERALD OFFICE, UTICA.

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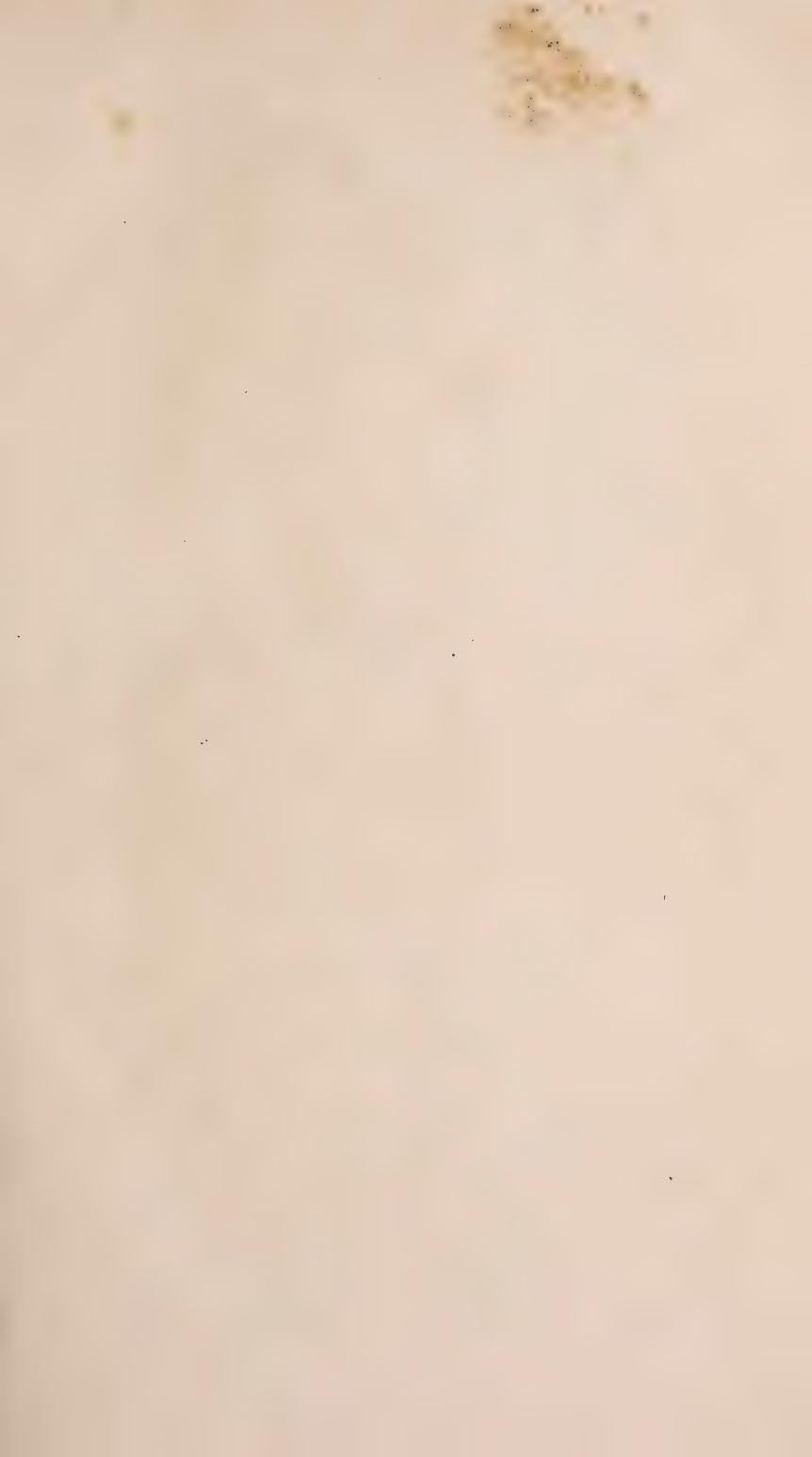
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CONNECTICUT HOSPITAL FOR INSANE,
AT MIDDLETOWN.

AMERICAN JOURNAL OF INSANITY. FOR JULY, 1876.

HISTORY AND DESCRIPTION OF THE CON- NECTICUT HOSPITAL FOR THE INSANE.

BY ABRAM MARVIN SHEW, M. D., SUPERINTENDENT.

Previous to the year 1840, the Insane Poor were kept confined in the Almshouses of the town; a certain number were generally well cared for in the Retreat at Hartford. In the year 1840 an effort was made to provide a hospital especially for them.

A memorial addressed to the General Assembly, stated that the number of pauper insane was eight hundred, and that there was pressing need of special provision for their care.

It is a coincidence, that in 1840, a site for a hospital was selected at Middletown, about one quarter of a mile from the land which was presented to the State for the same purpose, twenty-six years later. But a period of twenty years was allowed to pass before the Legislature was ready to recognize the importance of providing a suitable State Institution.

Mainly through the earnest and judicious efforts of Miss Dix, during the Session of the General Assembly at New Haven, in 1866, an "Act to create a Hospital for the Insane, in the State of Connecticut," was adopted as follows:

WHEREAS :—The Report of the Commission appointed by this Assembly in the year 1865, shows that there are seven hundred and six insane persons in the State of Connecticut, of whom two hundred and two are in the Retreat at Hartford; two hundred and four are in the almshouses; and three hundred outside of both; and whereas, it is impossible to secure suitable care and medical attention for this large, and deeply afflicted class, either in the Retreat, or in the almshouses, or in private houses; and whereas, considerations of humanity and of true economy, as well as of public welfare, and of our holy religion, all alike demand that these persons should be liberally provided for by the State; therefore, be it enacted by the Senate and House of Representatives in General Assembly convened.

SEC. I. There shall be established and maintained, at some place in this State, to be selected by a Board of Trustees as hereinafter provided, an Institution to be named, "The General Hospital for the Insane of the State of Connecticut."

SEC. II. The government thereof shall be vested in a Board of twelve Trustees, consisting of the Governor, and one from each county, to be appointed by the Senate, and of three to be appointed by the other Trustees, which three shall be selected from the town or vicinity in which the institution shall be located, two of whom shall be so appointed and commissioned annually; and the places of the two senior members, as they stand in the order of their appointment, shall be annually vacated; and no Trustee shall receive any compensation for his services, but he shall be allowed the amount of expenses incurred in the discharge of the duties of his office, which amount shall be examined and allowed by the Comptroller of public accounts, and paid from the Treasury of the State.

SEC. III. The Trustees shall take charge of the general interests of the Institution, ordain and execute its laws, appoint and remove its officers, select a suitable location and a plan for its buildings; shall exercise a strict supervision over all its expenditures, and discharge all other functions usually devolving upon such Trustees; they shall have power to receive by gift or purchase, a suitable farm, and receive a deed thereof, and the State Treasurer shall pay therefor, in case of purchase, on the warrant of the Comptroller.

SEC. IV. The Superintendent shall be appointed by the Trustees at their first or some subsequent meeting. He shall be a competent physician, and reside in, or near the Institution. As soon as possible he shall procure the plan of a suitable building or build-

ings, which shall be approved and contracted for by the Trustees; he shall personally superintend its erection and arrangements, and whenever one section or building shall be completed, he shall open the Institution for patients, upon such terms and conditions as said Trustees shall prescribe, always giving the preference to the most urgent cases, and to the people of this State. He shall be the Treasurer of the Institution, keep full and accurate accounts of his receipts and expenditures, and of the property entrusted to him. All accounts, with suitable vouchers, shall be submitted to the Trustees, as they shall require. He shall, before entering upon his duties, give a bond to the Treasurer of the State, with acceptable sureties, in the sum of five thousand dollars, conditional that he shall faithfully account for all moneys and property received by him as Superintendent; but no Trustee shall be Superintendent of the Institution.

SEC. V. The State Treasurer shall pay to the Trustees, on the warrant of the Comptroller, such sums of money as they shall require for the location and the building of the Hospital, not to exceed five thousand dollars at any one time, and the expenditure of which shall be accounted for to the Comptroller, with the vouchers, before any other sum is advanced.

SEC. VI. The Trustees shall hold their first meeting on the call of any three of their number, due notice being given to all.

SEC. VII. Thirty-five thousand dollars are hereby appropriated to carry into execution the provisions of this Act.

SEC. VIII. This Act is to take effect immediately.

Approved June 29, 1866.

In accordance with the provisions of Section II of the above act, the following named persons were appointed Trustees, and at once, with unanimity and zeal, entered upon the important duties confided to them:

H. Sidney Hayden, Hartford County; Leverette E. Pease, Tolland County; Benjamin W. Tompkins, New London County; Rev. Samuel G. Willard, Windham County; William B. Casey, M. D., Middlesex County; Richard S. Fellowes, New Haven County; Rev. Curtis T. Woodruff, Fairfield County; Robbins Battell, Litchfield County; Benjamin Douglas, Middletown; Julius Hotchkiss, Middletown; Rev. Joseph Cummings, D. D., LL. D., Middletown.

The first meeting of this Board was held at Hartford, July 20th, 1866. His Excellency, Governor Joseph R. Hawley, presided. To prevent needless delay in the accomplishment of the great object to which they were appointed, committees were named to visit other Hospitals, to select a Superintendent, to procure a suitable site and plans for building, etc.

After several meetings, and hearing the claims and liberal propositions of other towns, the Board formally and unanimously accepted about two hundred acres, which the town of Middletown offered gratuitously to the State for the purposes of the Hospital.

It was subsequently made evident that the Institution would require a larger possession, and adjoining lots, in all about one hundred acres were purchased by the Trustees.

The site of the present Hospital is about one mile and a half south easterly of the City of Middletown, bordering on the Connecticut river, is dry and healthy, easy of access by land and water, commanding on all sides extended views of a beautiful region—and what is of special mark, includes the absolute control of a living stream called Butler's Creek, which furnishes an abundant supply of pure soft water, adequate to all the requirements within the walls, and sufficient for the mechanical and ornamental uses of engines and fountains.

The judicious vote at their first meeting, alluded to above, led the Trustees to inform themselves individually, of the needs in detail, of institutions for the relief of insane, and they visited several hospitals, and so brought together facts, and the experience of well known superintendents, in other States, of direct value to their object.

On the 15th of October, 1866, Dr. Abram Marvin Shew, then connected with the New Jersey Lunatic

Asylum, was appointed Superintendent, and immediately entered upon the duties of the office.

Upon a plateau of the farm nearest the town, excavations for foundations were begun, and a permanent road to the highway constructed, to facilitate the progress of the building early in the following spring.

During the winter, the Superintendent was engaged in elaborating the details of plans which he had submitted, and which were adopted unanimously, with approval by the Board of Trustees. Mr. Addison Hutton, architect, of Philadelphia, was employed to make working-drawings and occasionally to inspect the construction of the building. On the 20th of June, 1867, the corner stone was laid with impressive and appropriate ceremonies, by Governor James E. English, in the presence of the State Officers, Members of the Legislature and a large concourse of interested spectators. Addresses were made by Governor English, Ex-Governor Hawley, Dr. Pliny Earle, of Northampton, Mass., Rev. Dr. Cummings, of Wesleyan University, and Prof. Thacher, of Yale College. During the year the work was vigorously pushed on. The carpenter-shop, laundry, bake-house, kitchen, boiler-house, center building, first south wing and one return wing were enclosed before cold weather, and completed during the winter. At a meeting of the Board, February 25th, held at the residence of H. Sidney Hayden, of Windsor, (at that time disabled by a painful accident) on the recommendation of the Superintendent, Dr. Winthrop B. Hallock was appointed Assistant Physician, and his wife, Mrs. Mary Hallock, Matron, and Charles W. Galpin, of Middletown, Steward.

One male patient was admitted on the 29th day of April, 1868, although the Hospital was not *formally* opened until the next day, when twelve men were received.

The daily average number of patients during the first eight official years, is shown in the subjoined table:

OFFICIAL YEAR.	Men.	Women.	Total.
1868-1869,.....	79.35	6.12	85.47
1869-1870,.....	110.63	114.54	225.17
1870-1871,.....	119.00	118.00	237.00
1871-1872,.....	124.15	118.43	242.58
1872-1873,.....	132.10	132.43	264.53
1873-1874,.....	146.32	193.19	339.51
1874-1875,.....	198.63	227.17	425.80
1875-1876,.....	225.60	227.04	452.64

There have been admitted to this date, (April 1st, 1876,) twelve hundred and seventy-two (1,272) patients; seven hundred and fourteen (714) males, and five hundred and fifty-eight (558) females. Of this whole number, two hundred and thirty-nine (239) were discharged recovered, one hundred and ninety-one (191) were discharged much improved, one hundred and eighty-five (185) were discharged not improved, one hundred and ninety-seven (197) died, leaving the number in Hospital to-day four hundred and sixty (460,) of whom two hundred and twenty-seven (227) are males, and two hundred and thirty-three (233) are females.

The first appropriation for this Hospital was passed by the General Assembly of 1866. Additional appropriations were made from year to year, and the work was steadily carried forward until January, 1874, when the last wing was completed and formally opened for the reception of male patients.

The subjoined table shows the total amount received from the State for the purchase of land, constructing of dam, reservoir, and water-works, and for the erection and furnishing of the Hospital buildings. In accordance with the terms of the appropriation made in 1871,

and '72, a commission consisting of Hon. H. Sidney Hayden, Rev. Dr. Cummings and Cornelius Brainard, Esq., was appointed by Governor Jewell to supervise the completion of the last two wings. Their labors were performed in a manner that reflects the highest credit upon them and honor upon the State which selected them.

OFFICIAL YEARS.	AMOUNT.
1866,	\$ 35,000 00
1867,	150,000 00
1868,	200,000 00
1869,	35,543 00
1870,	39,500 00
1871,	90,000 00
1872,	90,000 00
Total,	<hr/> \$640,043 00

Thus it will be seen that the total sum appropriated by the State for this benevolent work is six hundred and forty thousand and forty-three (\$640,043) dollars. Ample accommodations for four hundred and fifty patients, and necessary attendants are thus provided at the average rate of about fourteen hundred (\$1,400) dollars per capita. When it is remembered that the entire work was done in the most substantial manner, during years immediately following the rebellion, when prices of labor and all building materials were greatly enhanced in value, Connecticut people may justly feel proud of this favorable exhibit.

In the following description I shall endeavor to avoid confusing details, using figures only when necessary to convey an idea of size or space. The entire structure, including carpenter-shop, boiler-house and laundry, is of Portland freestone, laid in broken range-work, two feet in thickness, with tool-dressed quoins, window-sills and caps, water-table, belting course and cornice, surmounted by a "French roof" of slate and tin.

Inside the stone wall there is a four inch brick lining, leaving an air-space of two inches between it and the stone, to insure dryness. The style of architecture is rigidly plain. The elevation was designed by Addison Hutton, of Philadelphia.

The dimensions of the center or administrative building, are sixty feet in width, one hundred and twenty feet in depth, and four stories in height.

The floor of the lower story is four feet above the level of the ground, and a basement, seven feet six inches deep extends under the whole building. The central portion of the cellar corresponding to the corridors above, is used as a closed air-duct, in which are placed the pipes and radiators by which the rooms above are warmed and ventilated. On each side ample space is afforded for store rooms, bowling alleys and a tram-way to carry food from the kitchen to the dumb-waiters, and the conveyance of clothing to and from the laundry. The first story of the main building contains, on one side an officers dining-room, nineteen by nineteen feet, and a special diet-kitchen, nineteen by twenty-two feet, and a large store-room, nineteen by forty-two feet. On the other side a room for the house-keeper, three rooms for female employés, a small store-room, a bath-room, and a store-room for the special diet kitchen, and a water-closet. The large store-room, mentioned above, has a slate tile floor, is fitted up with a sixteen foot Bramhall & Deane French range and steak-broiler, jacketed soup and vegetable kettles, with necessary steam, hot and cold water pipes, sinks, &c., required for a duplicate kitchen whenever repairs or changes are needed in the main kitchen. As a matter of fact, it has, until recently, been devoted to this purpose. The second, or principal story, is reached through a portico with a flight of six steps on either side to a

lower landing, ten by seventeen feet, and a direct flight of ten steps to the main landing, which is sixteen by twenty-five feet. Four stone columns, two feet in diameter and seventeen feet in height, support the heavy stone cornice which is covered by a tin roof. Ornamented iron railings on the sides and in front, with two gas lanterns sixteen feet in height, add to the effect of the noble entrance. The entrance hall is fourteen feet wide, one hundred and sixteen feet long, and sixteen feet high. The first room on the right is the general business office of the medical staff; the second is the clerk's office, containing a lavatory, a store-room for records and small articles, permanent desks, and a fire-proof safe; the third room is devoted to dry goods and matron's stores; the fourth is a reception room for male patients, with a door opening into an alcove of one of the wards; the remaining room on this southern side is occupied by the assistant matron.

On the left of the entrance is the Trustee's room; a large reception room for female patients, a dispensary and medical store-room, and rooms for the First Assistant Physician and Matron. Midway, the hall is intersected by a transverse hall, with broad stairways leading to upper floors and to the wards. The second stories above, in front, contain rooms for the Superintendent and family, and other officers; the rear of the third and part of the fourth stories form the chapel, a commodious room, forty-four feet wide, fifty-six feet long and twenty-two feet high, with oval recess ceiling, finished in a plain and neat manner, and furnished with stationary seats of ash and black walnut, a platform and lecturn of the same woods. The plaster finish of this hall was contributed by Richard S. Fellowes, of New Haven, and the wood-work by H. Sidney Hayden, of Windsor. The large and beautiful organ, which

stands in the rear center of the chapel, was purchased from the South Congregational Church for the sum of one thousand dollars, which amount was contributed by a few of the Superintendent's friends. The instrument was manufactured by Mr. Johnson, of Westfield, Mass.

On either side of the administrative building, and at right angles with it, are situated the wings, containing the accommodations for patients and their attendants. The first wing is forty feet in width, one hundred and twenty-four feet in length and three stories in height, with an "L" or return wing, which also is forty feet in width, one hundred and eight feet in depth, and four stories in height. The walls are one foot eight inches in thickness, and have brick linings, similar to that described in the center building. The corridor and partition walls, fourteen inches in thickness are of brick, with an air space of six inches in the center, into which are carried all the hot air and ventilating flues. Corridors twelve feet in width, and height extend the entire length of the wing, with alcoves ten feet in width on each side adjoining the center building, for light and air, and large triple windows, from floor to ceiling at the ends. The "L" halls are ten feet in width, and at right angles with the corridors. Each ward contains a dining-room, twenty by twenty-one feet, furnished with china-closet, wash-closet with hot and cold water and dumb waiter; a day or reading room, two associate dormitories for four and six patients, eleven single rooms, two rooms for patients, seriously ill, shut off by a passage way from the main corridor; one clothes room, one front and one rear hall and stairways leading to outer doors, affording a ready escape in case of fire, and a large room for attendants. In each hall there is a water-closet and wash-room adjoining the

bath-room. The water-closet bowls are enameled cast iron, funnel shape, and flushed with water whenever the door is opened, by a spring attachment. The waste pipe from the closet and slop-hopper leads to the main soil-pipe and this has a connection with the tall chimney of the boiler-house, as hereafter described. The bath-rooms are furnished with cast iron tubs, of the approved pattern of Messrs. Morris, Tasker & Co., of Philadelphia. The supply of hot and cold water and the waste, pass through one opening in the bottom. In a vertical duct from the basement to upper stories, opening by a door in each bath-room, is a pipe-closet, connecting the supply of hot and cold water with each bath-tub, accessible only to the attendant. In each pipe-closet is a fire-plug with one hundred and fifty feet of hose permanently attached; and adjoining this a steam drying room, containing coils of iron pipe placed under a rack upon which damp clothing, bedding or wash-rags can be dried.

The above description applies to three stories of first wing. By continuing the brick corridor and partition walls up within the mansard roof which covers the "L" or return wing, a fourth story ward ten feet six inches in height was obtained. The arrangement of rooms corresponds to the story underneath, and is particularly adapted to small classes of patients who only require dormitory accommodations.

The second section or wing, extends in the same direction, but is set back fifty-eight feet from the front line of the return wing. Like that it contains in each of the three stories, a central corridor, twelve feet wide, one hundred and twenty-four feet long and twelve feet high, lighted at the end nearest the first wing by alcoves on either side, and a large triple window at the termination. The arrangement of dining-room, bath-

room, water-closet, clothes-room and attendants room, is similar to that already described. There is also a large parlor, rear and front stairways, fifteen single rooms, and four double rooms. In addition to the regular wooden doors, there is also a corrugated iron door on each story, which slides into a pocket in the wall, which when closed, forms a complete fire-proof shut-off between the wings. A fourth story ward is arranged with similar accommodations to that of the first section.

The interior part of the building is plain and substantial; the wood work is of Georgia yellow pine, oiled and varnished. The floors throughout are laid with three and four inch matched stuff, with coarse counter-floors beneath, deafened by mortar one inch and a half in depth. The lower stories are used as wards for excited patients. The rooms on each side of the corridor are fitted with inside window shutters hinged and locked, with a separate hot air flue for each. Nearly all of the hot air flues in rooms and corridors open seven feet above the floor, and are guarded by locked registers, plain registers or register faces. Every room has a ventilating flue that begins near the floor, is carried up in the brick walls independently of all other flues and without an opening until it terminates in a chimney four feet above the roof. Several years experience has demonstrated the decided advantage of this arrangement over the plan commonly adopted, in which the flues terminate in the attic, near a ridge-ventilator, or in a large common duct passing horizontally through the attic, the air of which escapes through windows, or by means of a cupola. The advantages are, independent perpendicular flues with a more uniform draft from each room and entire safety from dangers by fire. Each ventilator is in reality a fire place or a space in which a fire could be safely lighted. As

a precautionary measure all of the stairways are closed at the sides, and, in the recently finished wings, are of wrought iron firmly anchored to the walls. The rear hallways open from the lower story wards directly into four large airing courts, in which shade trees have been planted, and summer houses erected. The single rooms for patients throughout the Hospital are nine feet wide, ten feet six inches long, and twelve feet high. There are thirty-two rooms, eleven feet wide, twelve feet long and twelve feet high, which may be occupied by two patients or by a patient and a special attendant. The associate dormitories vary in size from ten feet six inches by eighteen feet, to twenty by twenty-one feet, and twelve feet high, except in the small fourth story wards previously described. The main structure, exclusive of rear buildings, is lighted by four hundred and seventy-four windows, three feet wide and six feet high, eighty windows three feet wide and nine feet high, twenty-four triple windows, nine feet wide and nine feet high. About thirteen thousand square feet of glass were required to glaze these windows, or a space to cover one hundred and thirteen feet square.

The rear central building, which is sixty feet wide, one hundred and fifty long, and two stories high, contains all the mechanical departments, and is situated in the rear of the Hospital, and is connected with it underground by a double passage-way in which the cars convey food from the kitchen and bakery, and clothing to and from the laundry.

Owing to the favorable slope in the rear, the first story is on a level with the cellar of the main buildings, and includes a bakery, a large kitchen and scullery, a laundry and ironing room, a fire-proof room for sad-iron heater, a fan-wheel for forced ventilation, engine-room, engineer's fitting shop and lavatory and sinks. The

second story embraces the sewing department, large dining-room, and twelve rooms for female employés. There are six rooms for male employés over the engineer's shop, and a large sitting-room furnished with books and daily papers for the use of the out-door help. The boiler-house joins this building, and has a chimney one hundred and fourteen feet high and five feet wide at the top. It contains three large drop-flue boilers six feet wide and twenty-four feet long. Two of these are sufficient to generate all the steam required for mechanical purposes, cooking, ventilating and heating, during the coldest weather.

A twenty-five horse power engine, manufactured by the Woodruff & Beach Foundry and Machine Co., of Hartford, furnishes power for the fan-wheel, washing machines and centrifugal wringer. The engine-room has a slate-tile floor, and is ceiled in walnut and ash woods, oiled. The fan-wheel blower is five feet wide and eleven feet six inches in diameter, and has eight blades bent at an angle of ten degrees; air is admitted from a tower through an opening on each side; moving at the rate of forty revolutions per minute, this blower forces a constant current of pure air through the duct under the corridors, which becomes heated by the radiators, and passes directly to every room and hall in the entire building.

The Hospital is heated by steam, conducted from the boilers, through a five inch wrought iron pipe covered with asbestos, to radiators, (Gold's patent,) placed in the cellar air duct under the flues. By the use of these radiators put up in stacks of from ten to twelve in each box, the apartments are severally heated in the stories, one above another.

Experience shows that a more equal distribution of heat would be obtained by having the flues from each

stack of radiators lead to one story; as in the present arrangement, when the fan wheel is not moving, the unequal length of the flues creates an unequal draft by which the upper stories are unduly supplied.

In an Institution of this character, very important advantages of illuminating by gas, over other modes are economy, cleanliness, and security against fires. During the month of November, 1867, the Board of Trustees made an arrangement with the Middletown Gas Light Company, for the laying of a six inch main from their works to the Hospital.

In one respect, the Connecticut Hospital for the Insane is more favorably located than most of the older institutions. At a distance of one and a half miles from the building, is a range of hills, known as the White Rocks. These hills are nearly destitute of soil and vegetation, but thousands of springs bubble forth from crevices in the rocks, unite and form streams of considerable size, which pass into the Connecticut River through a number of ravines. On one of these streams known as Trout Brook, or Butler's Creek, a reservoir covering about two acres, was formed, by making a substantial dam across the ravine. This dam or embankment is one hundred and fifty feet in length, fifteen feet in width across the top, with a slant each way of eighteen inches, to every twelve inches perpendicular. The inner slope is covered with broken stone; the top is four feet above high water mark. A large waste canal, cut in the rocks on one side of the dam, carries off surplus water. The bottom of the reservoir was thoroughly grubbed of vegetable matter and soil, before being used. The average depth of water is about six feet; elevation above the ground floor of the Hospital, seventy-four feet. From this reservoir, a six inch iron pipe conveys the water to the building. At suita-

ble low points, "blow-offs" were put in the main pipe, by which sediment can be removed. The quality of the water is unexceptionable, and in ordinary seasons, of sufficient quantity to supply several institutions of this size. During the greater portion of the year the amount of water passing off through the waste canal would be considered sufficient for a good mill-privilege. On the banks of this reservoir, a substantial ice-house to store about one hundred tons, has been erected. This abundant supply of water, by gravity, enables us to dispense with costly and annoying tanks in the attic, and to use at all times an unlimited quantity in the closets and hoppers. All of the waste water, the sewage and the flowage from the roofs are conducted in cement drains under ground, to the rear, where they unite in the main sewer, which is eighteen inches in diameter, has a rapid fall, and terminates two thousand feet east of the Hospital; from thence the sewage is distributed over the farm, by means of open ditches, so arranged that the flowage may be turned from one field to another in rotation. Evidences of the value of the plan are apparent in the increased fertilization. The annual value of farm products averages about nine thousand dollars; a comparison of quantities from year to year, shows the pleasing fact of a steady increase, attributable both to additional labor of our patients, and to the improved condition of the land. It is our aim to gradually bring under tillage all parts of the farm, and by a system of drainage, and use of the house sewage, to enrich and improve land which has been heretofore of little value.

For the protection of stock and the preservation of farm products, a substantial barn was erected in 1869. It is situated on a slope, two thousand feet in the rear of the Hospital, and has a sub-cellar for swine and

manure, a commodious, sheltered and ventilated cellar, (three sides above ground,) to accommodate forty cows, and a superstructure of wood, fifty-six feet in width, ninety feet in length and twenty-three feet in height, for the storage of hay, grain and farming implements; two cow-sheds sixty feet in length, with stalls for twenty-eight head of cattle were added to the barn. A commodious slaughter-house, with all necessary appliances for heating water, hoisting carcasses, &c., adjoins the barn-yard; connected with this building is a piggery, sixteen feet wide, and one hundred and fifty feet long, with pens for eighty pigs.

During the past two years the grounds surrounding the Hospital have been enclosed and improved by grading and drainage. The carriage drives and walks are carefully constructed, after the Telford plan, by Thomas McClunie, of Hartford, who has efficiently directed this part of the work. When completed, these pleasure grounds, embracing forty acres of beautifully undulating land, will become valuable adjuncts in the proper management of the institution, and nearly all, no matter what may be their mental condition, will derive positive benefit from their regular and daily use.

At the principal entrance to the grounds, stands a cottage-lodge, or gate-house, of brown stone, with slate roof and ornamental iron cresting. It is arranged to accommodate the family of the gate-keeper, who will have charge of the walks and driveways. Our Institution as yet, is able to offer but few of the recreative amusements or employments possessed by older hospitals. A few games of harmless nature are provided, and the billiard-rooms invite those who are sufficiently restored to understand and enjoy the play. One evening, each week, is devoted to music and social enjoyments, which are participated in by patients and

attendants, under the direction of the officers. Two evenings are occupied by concerts, lectures, readings or stereopticon exhibitions. The chapel has been regularly used on the Sabbath, to the advantage and comfort of our patients. Acknowledgments are gratefully and sincerely due to the reverend gentlemen of Middletown and vicinity, who have cheerfully and regularly conducted the church or chapel services since the opening of the Hospital.

During the past four years, a partial trial of the cottage-system has been made; two dwelling-houses, situated a few rods south of the main building, were refitted and furnished in a plain manner for the occupation of fourteen male and sixteen female patients, selected from the class of quiet chronic cases. The buildings are simple wooden structures, heated by coal-stoves, and lighted by oil lamps. Our experience is, that under favorable circumstances, a system of cottages may become an important part of a regularly organized hospital. Cottages substantially constructed of brick or stone, situated sufficiently near the main buildings to be properly heated by steam and lighted by gas from the common center, would be a very desirable addition to the present methods of caring for the insane. The Superintendent could, from day to day, transfer to cottages such patients as he found to require less and less restraint upon personal liberty.

During the winter of 1866, a commodious wharf was constructed on the banks of the Connecticut River, one third of a mile from the Hospital, on land deeded to the Trustees for this purpose. Nearly all the stone, brick and lumber used in the building were landed on this wharf; as is also the annual supply of coal. A substantial coal-shed capable of storing five hundred tons was erected near the landing. By this arrangement a

cargo can be unloaded rapidly at any season of the year and kept under cover until such time as the Hospital teams can be advantageously used in hauling it to the building.

The government of this Hospital is vested in twelve Trustees. The following named gentlemen have been officially connected with the Institution in this capacity. Those in italics are still acting.

Ex. Gov. Joseph R. Hawley, Hartford; Ex. Gov. James E. English, New Haven; Ex. Gov. Marshal Jewell, Hartford; *Governor Charles R. Ingersoll*, New Haven; *H. Sidney Hayden*, Windsor; Leverett E. Pease, Somers; *Samuel G. Willard*, Colchester; Benjamin W. Tompkins, Norwich; Wm. B. Casey, M. D., (deceased,) Middletown; *Richard S. Fellowes*, New Haven; Rev. Curtiss T. Woodruff, (removed to New York City,) Norwalk; *Robbins Battell*, Norfolk; *Benjamin Douglas*, Middletown; *Julius Hotchkiss*, Middletown; *Rev. Joseph Cummings, D. D., LL. D.*, Middletown; *Lucius S. Fuller*, Tolland; *Henry Woodward*, Middletown; *Joseph D. Bates*, Danielsonville; *Samuel Lynes, M. D.*, Norwalk.

The associate officers are appointed by the Board of Trustees on the recommendation of the Superintendent.

These various positions have been filled as follows:

First Assistant Physician, *Dr. Winthrop B. Hallock*; Second Assistant Physician, *Dr. Calvin S. May*; Steward, Chas. W. Galpin; *Steward, J. Delos Atherton; Clerk, *Frank B. Weeks*; Farmer, *Clinton W. Weatherbee*; Matron, *Mrs. Mary Hallock*; Assistant Matron, *Mrs. Margaret Dutton*.

Melvin B. Copeland, Cashier of the Middletown National Bank, was appointed Treasurer in 1867, and has performed the duties of that office to this date.

* The office of Steward was abolished in 1873, and the office of Clerk substituted.

Recognizing the importance of thorough scientific autopsies in doubtful cases, the Board of Trustees, in 1870, appointed Dr. Edward C. Seguin, of New York, Special Pathologist. Some of the results of Dr. Seguin's investigations have been published with the annual reports.

The whole number of persons employed in the Hospital is seventy.

The building, including the cottages already mentioned, affords accommodations for four hundred and fifty patients and their attendants.

NOTES ON ASYLUMS FOR THE INSANE IN AMERICA.*

BY JOHN CHARLES BUCKNILL, M. D., F. R. S.

Having been compelled by failing health, in the spring of last year, to rest from official work, and being recommended by medical advisers to seek change of air and scene, with as little fatigue as possible, and to prefer travelling by water, I formed the design of sailing to the United States, going up the Hudson to the great lakes, and returning by the St. Lawrence. This design I carried out, with only such deviations, as the frank and generous friendliness which I met with from my professional brethren in the States, and their great desire to show me their institutions, rendered me unable to avoid. I had not intended to make anything like a tour for the inspection of American asylums, but it will be readily understood that the above named influence, united to the deep interest which a man must ever take in a matter which has been to him the subject of life-long study, led me to visit and narrowly to observe the management of many of these institutions and the treatment of their inmates; so that I find I visited altogether thirteen lunatic asylums, (ten being in the United States and three in Lower Canada,) and two schools for idiot children, besides six institutions for habitual drunkards, on which my remarks must be reserved for a future occasion.

Of the asylums which I visited in the States, two were State asylums, corresponding to our county lunatic asylums; four were asylums supported out of the municipal funds of large cities, corresponding to our borough asylums; three were hospitals for the insane, closely corresponding with institutions of the same name in our own country, supported by private benefactions and payments made on behalf of patients, and under the control of boards of managers, elected by benefactors; and one was the Criminal Lunatic Asylum for the State of New York. I did not in the States visit any private asylums corresponding to our licensed houses for the insane, and I was informed that the system of private asylums was developed only to a small extent in that

* From the *London Lancet* of March 18, 1876, and subsequent dates.

country, and that probably there was not more than some 150 lunatics in the whole of the States, confined in houses of that type. I was kindly invited by the proprietor, Dr. Barstow, to visit a private asylum in the neighborhood of New York, which was said to be a very good one, but I was unable to make the effort. All three of the asylums which I visited in Lower Canada, were strictly speaking, private asylums; that is to say, they were proprietary institutions, although two of them were occupied almost entirely by poor lunatics supported by the public funds of the province. The only private asylum, really so in form and substance, which I visited I found by accident, as it were, forming one part of an inebriate institution near Quebec.

I shall commence with the class of asylums, and, indeed, with the particular institution, of which I saw most,—viz: the Pennsylvania Hospital for the Insane, on the outskirts of Philadelphia; which seems, in its constitution, management, and objects, closely to resemble the Friend's Retreat at York. Indeed, it has a yet more striking resemblance, from its intimate connection with the Society of Friend's. I resided six days in the house of Dr. Thomas Kirkbride, the Medical Superintendent, and enjoyed the largest opportunities of observing the management of the institution. Of course Dr. Kirkbride is a Friend, though I did not know it until he told me; but when he took me to the annual meeting of the governors, which was held in the library of the hospital, founded by William Penn, I saw some of the brown, square cut coats, and broad brimmed hats, which there still form the distinctive costume of this simple, sensible and humane sect.

The Pennsylvania Hospital for the Insane, is situated about two miles from Philadelphia, and occupies a very fine, extensive, and valuable site. The buildings, for the men are nearly half a mile from those of the women, and are separated from them by a broad and deep vale, with a meadow in it, which is rented by some outside dairymen, and forms a sort of no-man's-land to partition off the two sexes. The buildings are architecturally unpretentious, but internally they are exceedingly well arranged and commodious. I can not say that I saw anything remarkable in the treatment of the inmates, or anything which our Commissioners in Lunacy would have been surprised to find in the management of one of our best English hospitals for the insane. I observed a daily persistent effort to interest and amuse the inmates, a *reunion* every evening for readings or calisthenic dances, or oxyhydrogen transparencies, or something of that kind, an abundant supply of car-

riages for driving, mostly within the large grounds, and a general system of watchful care and kindness, which I am fain to believe is the rule in our own institutions of this class. A matter which was remarkable to me was to find, in conversation with my most kind hearted and enlightened friend, Dr. Kirkbride, that he 'was not a non-restraint man. In common with the great majority of his psychologist brethen in the States, perhaps it would be more correct to say with the whole of them, with very few exceptions, he had made up his mind that the total abolition of mechanical restraint was not advisable in the treatment of the insane. But in the wards of his asylum—and I believe I saw every one of his patients—I did not observe any kind of mechanical restraint actually employed, and I did observe some cases of lunacy there, and one case in particular, in which I should have expected him to carry his theory into practice, if, indeed, it were not a mere theory. I observed a lady, recently admitted, who was suffering from the most acute and restless form of mania following child birth, and presenting just a case for the imposition of a strait-waistcoat under the old system; but she was treated by Dr. Kirkbride, just as our best men would treat her. She was placed in a low and narrow, but comfortable bed, in an airy and cheerful room, a kindly and patient nurse was seated on each side of her, and she was kept in the recumbent position as much as possible, mostly by persuasion and a little by gentle force; and herein she was submitted to active, anxious and skillful medical treatment. And if I saw no cases of mechanical restraint in this asylum, neither did I see any of seclusion. If I may without irreverence make a scriptural allusion, I thought that my friend somewhat resembled that man who said he would not go into the vineyard, but went.

Another hospital for the insane which I visited, and in which I spent a long day, and in which I again had the pleasure of meeting the Board of Management, was the Bloomingdale Asylum, within six miles of New York. It is under the careful and skillful superintendence of Dr. Brown, and my remarks for the same cause, must be as meagre as those I have made on the Pennsylvania Hospital. I saw no restraint here also, and only one patient in seclusion—a case in which, to my mind, it was obviously needful. The situation of Bloomingdale is very beautiful, very near the top of the only hill in the immediate neighborhood of New York. This city, which has such wonderful water privileges, and which on a map gives you the ideal of perfection of a maritime city, has the disadvantage that it possesses no near hills or coins of vantage

from which you may look down upon its beauties. There are Bunker's Hill and the Dorchester Heights, from which you can see Boston City and harbor. You can survey Baltimore and Chesapeake Bay, from the Washington Monument, and Washington from the Capitol; but there is no place but the Bloomingdale Hill from which you can look down upon the harbors and the grand river of New York, and any stranger not interested in the welfare of insane Americans, might derive great pleasure on this account from a visit to Dr. Brown. If he were so interested he would also see a very well managed asylum, which it was to me very pleasant and satisfactory to inspect. I really forget the exact amount of the vast sum which I was told that Bloomingdale was worth from its proximity to the best end of this increasing city, but it was several hundred thousand pounds; I am afraid to say how many, lest my memory should be treacherous. However, it was something enormous, and there is no intention of selling it, and removing the institution further into the country. The proximity to the great city, for the advantage it offers to the friends of the patients and to other visitors to the institution, seems to be thought worth the sacrifice. As the asylum, in common with others of the same class in America, is financially prosperous, this opinion is probably right. Moreover, it may be good policy to keep an institution of this kind, which is to a great extent dependant upon the donations and bequests of wealthy citizens, within the range of constant public observation.

The McLean Hospital for the Insane, at Boston, possesses a site almost as valuable as that of Bloomingdale, but it is so near to the ever growing city, and so cut up with railways either *in esse* or *in posse*, that it has to be sold, and the governors have already purchased an estate some twenty miles in the country, whereunto they intend shortly to remove their institution. The present asylum is an old country house, bequeathed by the man whose name it bears, and, like many of the older buildings in the States, is constructed in great part of bricks which were made in the old country. It was opened in 1818, or two years before the Lincoln Asylum in England, and has always been conducted in what was thought at the time and place the least repressive manner possible. In 1839, the distinguished Dr. Bell reported: "It is the successful use of the means put into our hands by the extensive architectural arrangement here provided, that has enabled us to dispense almost entirely with restraining measures, or even confinement, as evinced by the fact that our 'lodge,' or strong rooms are not called into

use more than three or four hours during the year; that not one per cent. of our whole number is on an average under any constraint." I was taken to the McLean Asylum by my friend Dr. Tyler, who was the Resident Superintendent of it for a great number of years, and who is now the consulting physician. I did not see all the patients, and therefore, I shall abstain from observations on the custom of using restraint or not. One feature of construction which I first observed here, and which I think is objectionable is the plan of placing noisy and excitable patients in what are called "lodge wards," apart from the main building. The number of patients whose noise is incessant and annoying is very small, even in a large asylum containing many hundreds of inmates. There might, perhaps, be some reason for providing a small ward out of ear-shot of other patients, since I have known the inmates of a large asylum made miserable by one howling lunatic; but it seems to me that excitable lunatics, being those who most need frequent medical observation, ought, in the arrangement of a hospital for the insane, to be brought as near to the medical staff as convenient architectural arrangements will permit.

Another feature of the McLean Hospital, which I shall venture to criticise, because the institution is about to be removed and rebuilt, are the separate buildings called pavillions, for wealthy and tranquil inmates. These are fine structures, with spacious, lofty rooms and corridors. Each one accommodates eight patients, four in the first and four on the second floor, and each patient has a sitting room and a bed room to himself, both of them large and lofty. It struck me, however, that these patients lived too much by themselves in their own rooms, for their therapeutic welfare, and that smaller structures with smaller rooms, and with common rooms for meals and social intercourse, would have been better suited to promote the cheerfulness and happiness of the patients. With us a detached residence in connection with a hospital for the insane is more like a private house in which one or more lunatics are placed to reside with suitable companions and servants, and for certain cases this is an excellent variation of plan. A separate ward with solitary chambers, however large and luxurious, is quite a different, and, I venture to think, an inferior arrangement.

Notwithstanding my criticisms on these points of structural arrangement, I was greatly pleased with my visit to the McLean Hospital, which is evidently under very careful and skillful management; and, on the whole, I may say that, avoiding the restraint question, so far as my observation goes, the management of the

hospitals for the insane in the United States is most creditable, both to the liberality of the public, and of those who are deputed by the public to manage them, and to the skill, humanity and devotion of the medical officers upon whom the care and treatment of the insane inmates immediately devolve.

Before I pass on to another class of institutions for the insane—namely, those supported by public funds,—I shall venture to make a few remarks upon a matter which struck me very forcibly in every asylum which I visited in the States, which is that I nowhere* saw any number of patients enjoying out-of-door exercise. At Boston the excuse might be made that the weather was cold, but at New York, Philadelphia and Washington, the days of May were bright, sunny and delicious, and such days with us would have turned out the population of our asylum into the gardens and the grounds, overflowing into the country beyond. I saw nothing of this in the States. At Bloomingdale, on a glorious genial day, I did see some male patients in one of the airing courts, but as a rule the asylum population was persistently within doors, and there were unmistakable signs that this was the habit and custom of the land. The airing courts were untrodden, and the pathways in the fine grounds but little used, like those of some absentee nobleman in our own country. Of course I mean all this as comparative only, for I did see a solitary patient now and then out of doors, but such a sight as one sees on any fine day from the Great Western Railway passing by Hanwell was totally and conspicuously absent in the States.

Moreover, in no asylum I visited did I see any adequate provision of sun-shades and out-of-door seats, and the result of my observation and inquiries was the conviction that in the United States the patients in the asylum do not enjoy anything like the amount of out-of-door exercise and recreation which it is the common custom to provide for them in this country. I think this remarkable difference is to a great degree due to the habits of the people in the two countries, the Americans, notwithstanding their splendid climate, being far less out-of-door folk than we are. In doors they coddle themselves with cooked air, and out they do not care to budge, at least not for pleasure. When duty or business withdraws them from the stove atmosphere of the house, they encase

* Dr. Bucknill visited Utica on the 22d, 23d and 24th of May. On Saturday, the 22d, the records of the Asylum show that out of a population of 287 men patients, 233 were out of doors, and on Monday, the 24th, 252.

themselves in great coats, in bright, blessed weather, when an average Englishman would revel in the fresh, delicious air.

And if the inmates of American asylums do not get an adequate supply of that best and most powerful of tonics, fresh air, out of doors, they certainly do not get it within doors; for there the universal system of artificial heating and ventilation is skillfully carried out, to a pitch which to our sensations is a great discomfort. Everywhere in America the houses and hotels are heated by hot water or steam pipes to an extent which makes them exceedingly uncomfortable to the average Englishman, who will often sleep with his window open while all the rooms and passages of his temporary domicile are filled with the hot, dry, well-fried emanations of the furnace-room in the basement, combined sometimes with a slight smack of sulphur or of oil, or of some other substance respecting which there can scarcely be differences of opinion as to whether it is agreeable or not. In the entrance hall of the Boston Asylum I observed the thermometer marking 85° F. In the best asylums the furnace system of warming is carried out very thoroughly. Generally a powerful steam engine drives a great fan which propels furnace-heated air through passages in the basement, whence it is distributed throughout the building. There can be no doubt that the system is thoroughly efficient, and the only question which arises in my mind is whether it can be good for the patients. I ventured to express my opinion to the contrary at the Congress of the Medical Superintendents of American Asylums which I had the privilege of attending, and I was asked the temperature at which the wards of English asylums were usually kept. I replied that I thought during the winter or spring the temperature of our asylums would certainly not be above 62° F., on which Dr. Kirkbride, the authority of whose opinion, in that large meeting, was undisputed on all matters, said that 72° F., was the lowest temperature at which he should venture to keep his wards, and that he thought his patients would be uncomfortable in feeling and would suffer in health from any temperature below this; and his opinion certainly seemed to meet with the ready concurrence of his American brethren. Since I have returned I have found by inquiry that in all probability I considerably overstated the average temperature in our asylums, and that 52° F., would have been much nearer the mark. I thought that the inmates of American asylums did not, as a rule, bear the aspect of good physical health, certainly not as compared with the inmates of our own asylums, and I came to the conclu-

sion that want of out-of-door life, and the habit of breathing an over-dried and over-heated atmosphere by day and by night had much to do with this appearance. I should expect that the effect of this lower range of physical health, if it exists, would be seen rather in a diminished number of cures than in an augmented mortality. The difference of habit in this respect may well be counteracted by other habits in regard to mortality—as, for instance, by the immensely greater temperance of the American people than of our own; but the existence and cure of insanity hang so frequently upon slight modifications of the bodily health that I should not be afraid of staking my professional judgment on the accuracy of the opinion that cures would be more numerous in an asylum whose inmates had the general appearance of robust health, than in another asylum whose inmates, from whatever cause, looked sallow and sickly.

I may mention “in this connection,” as Americans say, that the patients in American asylums are not allowed beer or any other fermented or intoxicating beverage as a diet. In judging of this abstention we must bear in mind the wonderfully temperate habits of the people in the Eastern States, and the fact, of which all observing men, whether they be medical men or not, assure you, that the moderate use of intoxicants can not be borne with the same impunity in the dry air of America, as to a great extent we enjoy in our moister climate. In this country I think it might be hazardous to abolish the moderate use of beer or wine in the diet of the insane. I am told that the experiment is being made at the new county asylum at Sheffield, and that the mortality there has been exceptionally large, whether on this account or not I can not say, but the point is well worthy of careful observation.*

The first asylum supported by public funds which I visited was the asylum for the City of Boston. It is an old and inconvenient structure in a small and cramped site, adjoining, however, the magnificent harbor of Boston, upon which, in summer time, selected parties of the patients make excursions in a steamboat provided for the purpose. The inmates were tranquil, cheerful, and many of them were engaged in various occupations and amusements; but two of them were in strait-waistcoats. It will be con-

* With regard to my remarks on the dietetic use of beer in asylums, in *The Lancet* of April 21st, I am requested to mention that beer does form a part of the ordinary diet in the South Yorkshire Asylum. It is only in the medical treatment of disease in this asylum that the experiment of abstention from alcoholic stimulus has been made.

venient to reserve what I have to say on this important subject of mechanical restraint until I have to make some concluding remarks. Meanwhile I may observe that this asylum was obviously under careful and skillful management, and restraint was imposed, because in the opinion, erroneous I think, of the Superintendent, Dr. Walker, one of the kindest of men, it was considered best for the interests of all his patients that it should be employed. The old building is to be replaced at an early date by an adequate one on a good site in the country. The Mayor of Boston favored me with a view of the plans, which were those of a handsome structure of long extended frontage, and architecturally very imposing; and this leads me to add a few remarks upon the plans of new asylums, or those under contemplation in the States. The Americans think much, perhaps too much, of the architectural appearance of their new asylums. The new Boston Asylum is to be one long, straight, and it must be admitted, imposing structure. The new asylum for New Jersey is a five storied building, with the mansard roof now in so much favor. The basement and the mansard stories are, it is said, not to be used for patients. Perhaps not at first, but we know by dire experience in our own country what this intention comes to in the long run, when the increase of population presses upon supply of asylum accommodation; and at New York I saw a great number of lunatics crowded under the influence of such pressure into very miserable attics. The new asylum for New Jersey is indeed a magnificent building, and very creditable to the liberality of the State authorities, but I should have liked it better if its altitude had been decreased by two stories, and no space had been provided for the possible overcrowding of inmates into parts of the building not originally intended for occupation. Our idea of the liberality of the authorities in providing such handsome buildings will be enhanced when we reflect that the cost of building in the United States is more than one-third greater than it is in England, a fact which I state upon the authority of the architect of the New Jersey Asylum, by whom it has been carefully investigated. At Buffalo, a third asylum for the State of New York is being erected on plans which pleased me extremely. The building is of three, two and one stories, and the different wards fall back rapidly *en echelon*, leaving the central offices prominently in advance. The wards are connected with each other by semicircular glass-covered passages only fit for use as passages, and not for occupation. The plans, which have been devised by Dr. John P. Gray, of Utica, seem to me to combine the advantages of an asylum con-

structed in separate blocks, with a fine frontage, better than any others which I have seen. The plans of a new asylum for female patients in the District of Columbia have been prepared by Dr. Nichols, which resemble in general idea the plan of the new asylum at Buffalo, but the buildings connecting the blocks are intended to contain a number of single rooms, and I think in this respect they are not quite so good, because the different blocks will not be so completely isolated from each other. However, this system of separate blocks, of which I believe myself to be the originator, has been for many years a particular hobby of mine, and perhaps the plans of Dr. Nichols provide for as much separation as would content most other alienists.

The Willard Asylum for chronic lunatics chargeable to the State of New York is a pavilion asylum with a large central block for such patients as need to be kept under the immediate observation of the medical officers. I am sorry to say that I did not go over this asylum, but I heard from many of my professional brethren the highest encomiums on its management, and I am informed that the block system gives entire satisfaction. As a receptacle for chronic lunatics it seems to me to be a mistake on account of its remoteness from the great centers of population. It is quite in the west of the immense State of New York, more than three hundred miles from the city, and a considerable* distance from the great State Asylum at Utica. A case of puerperal mania, or other acute mental disease, arising at Seneca, would have to be taken past the asylum on a long journey to Utica to be treated. Moreover, the distance from the populous parts of the State must, and, as I learnt on inquiry, actually does prevent the friends and relations of the patients from visiting them. Difference of opinion has existed among ourselves as to whether it is advisable to separate chronic and incurable lunatics from others, but I think we should all agree that it was not desirable to place the Caterham Institution at Penzance.

To return to the subject of asylum plans. The governors of the McLean Asylum, at Boston, have determined to rebuild their excellent institution, crowded out from the environs of the city, on the separate block or pavilion system, and they have recently sent their accomplished architect, Mr. Charles Folsom, to this country to gather information by the inspection of our institutions. I am afraid that in the matter of this particular form of architecture his opportunities of inspection were but meagre. With the exception of Caterham, Leavesden, and the new asylum for

* One hundred and twenty-five miles.—EDS.

Lancashire, at Wigan, I do not know that we possess any institutions constructed on this plan, which, however much it may be advocated by medical men who have most experience in the management of establishments for the insane, does not seem to conform with the ideas of display which are native to the minds of architects and their employers. Then something has to be allowed for the appropriateness of climate and locality for special forms of building. The most concentrated asylum I ever visited was that at Genoa, where a mass of lunatics sweltered in a building constructed in the shape of a wheel with many spokes; and the most perfect specimen of a pavilion asylum I have ever seen was the one at Christiania, where the deep snows of a long and severe winter make the separate blocks cold, dreary and difficult of access. The plan had, without sufficient forethought and allowance, been adopted on foreign recommendation, as the non-restraint system also had been adopted, with the singular modification that the refractory wards were provided with galleries for the safety of the attendants. This was seen by me in 1869, and I trust that since that time further experience has suggested important ameliorations.

The Americans have no central authority of large and general experience, like the Commissioners in Lunacy, to guide them in the formation and management of their asylums; but, in default thereof, they make large use of the special knowledge of their medical officers, and in this manner they attain a high degree of success, as in the plans before mentioned of Dr. May and Dr. Nichols.

Each State acting on its own laws and judging of its own requirements in the matter of provision for the treatment of the insane, it can be no occasion for surprise that great divergence of practice exists. Thus the State of New Jersey, having already an asylum at Trenton accommodating five hundred insane patients, is now completing the new asylum at Morristown, calculated to accommodate eight hundred lunatics, "the policy of the State being to make ample provision for every insane person in it." In Missouri they have asylum accommodation for one thousand three hundred inmates, "leaving seven hundred or eight hundred without the instrumentalities enlightened humanity has devised." In Virginia "we have been unable to keep the gaols clear of all males: we hope to have the gaols clear of females soon. Some three hundred and fifty or four hundred chronic cases are scattered throughout the State at home or in the gaols." In Maryland "the

insane population is seven hundred and fifty." The State has provided accommodation for two hundred and fifty, and "ninety or one hundred are scattered between almshouses and county gaols." In North Carolina "we have nearly one thousand insane of both sexes and all colors, with accommodation for about two hundred and fifty of them, if we can call our crowded condition accommodation," and so on. I quote from the reports made by the superintendents of the different State asylums to the meeting of American Superintendents of the Insane at Auburn, the sufficiency of asylum accommodation varying, as it would appear, to a great degree with the wealth and prosperity of the different States. In Ohio, Dr. Gundry stated, seventy-five per cent. of the general taxation of the State "has been spent in building and supporting the benevolent institutions, in which are included the insane, blind, deaf and dumb, and idiotic." It is abundantly evident, from the reports of these gentlemen, that the people of the country at large, whether they belong to States which are prosperous and wealthy, like New Jersey, or are depressed and impoverished by war and its results, like North Carolina, are alive to the duty of providing sufficient accommodation for their insane, however much in the latter instances performance may lag behind desire.

There is, however, one painful reflection when one hears of the large sums appropriated to this purpose, and the discouraging *remnants* which exist, that the public money is not expended wisely, nor always even honestly. The President of the Association, Dr. Nichols, remarked on this point that one of the conditions which are necessary to secure State provision for the insane was "confidence on the part of the people and their representatives that the money appropriated to establish and maintain institutions for the insane will be economically and honestly expended. The politicians, it appears to me, bring such enterprises into disrepute by the drafts they make upon the appropriations for the establishment of institutions for the insane, in the shape of advantageous contracts and sinecure places for their political supporters, by which the cost of such institutions has been greatly enhanced." This I have myself found to be the public feeling. Speaking to an eminent banker in New York of the state in which I had found the city asylums, he replied: "I don't know how it is. They have cost enough, but we never know how the money goes. *There is always a tap leaking somewhere.*"

The law relating to the admission of lunatics into asylums differs somewhat widely in the various States. In New York, formerly,

the insane were committed by any judge upon the recommendation of any two physicians, *or persons calling themselves physicians*. The new statutes provide that no physician shall certify for committal to an asylum unless he be a permanent resident of the State, has practised his profession for at least three years, and possesses a diploma from an incorporated Medical College. He must also obtain a certificate of qualification from a judge of a Court of Record to whom he is personally known. This law, so much more stringent than our own, will tend to form a class of medical men duly qualified to exercise with knowledge and judgment an important and often difficult social duty. In Mississippi, a law, passed last session, provides that "in the admission of patients the sworn certificate of two physicians, containing a full description and history of the case, shall first be sent to the Superintendent, who grants admission to the most deserving." In Illinois also there have been some changes in the laws for admitting patients. All patients are now admitted *on the verdict of six men*, one of whom must be a physician. These are all new laws on the subject passed in the last session of the State Legislatures.

In the immediate neighborhood of the Borough Asylum, at Boston, I visited what we should call the Idiot Asylum, but which there enjoys the more descriptive and accurate appellation of the School for Children of Weak Mind. It is under the control of Dr. Howe, of world-wide reputation, who visits it at all hours of the day and almost of the night, and takes a lively interest in it. The building is a wooden one of one story with a basement, but the rooms are light, airy and cheerful, and I was forcibly struck by the space, comfort, and convenience of an institution which had paid a very small tax to architects and builders. It is under the immediate superintendence of a matron, with a staff of female teachers. I only saw one male teacher, who instructed and led the boys in their gymnastics, commencing from lessons in simple walking on a plain surface and walking upon a ladder placed horizontally on the floor, and ending in audacious pranks which made me giddy to look at. The children were well fed, well clothed, and in fine health, and they were evidently under the most kind and encouraging treatment. Their mental and physical education appeared to me to be excellent, and the staff of female teachers manifested that enthusiasm in the cultivation of this thin and poor human soil without which it is impossible that it can be made to bear even the smallest fruit.

Another institution of the same kind which I subsequently visited was the Asylum for Imbecile and Idiot Children belonging to the State of New York, situated at Syracuse, and under the superintendence of Dr. Wilbur. This is a good, substantial building, with a farm attached, in which the robust boys do a considerable amount of work, which is not only of financial service to the asylum, but affords a most valuable means of training the children to useful work. The painstaking management of the institution and the skillful treatment and education of the inmates appear to be very similar to those practised at Boston and in our own best asylums.

They have an admirable institution for the blind at Boston, also under Dr. Howe's superintendence, which I visited for the sake of seeing, in Laura Bridgeman, the greatest triumph of patient skill that has ever been attained, in the education, or rather the development of a human mind which nature has left in default of its instruments. The history of this most interesting woman, and the system of culture by which, with inexhaustible patience, she was rescued from the dark night of sensationless life, has been written by Dr. Howe himself in his last report, and may be found by English readers in the number for January last of the *Journal of Mental Science*. When two years old she lost her senses by scarlet fever; and when found by Dr. Howe, at six years of age, she was totally blind and deaf, and had only a very indistinct sense of smell. She is now an amiable and cheerful woman, with a bright expression of varying intelligence in her pleasing features, and capable of enjoying life by ready intercourse with all who know her language, and with others through them as interpreters. She even speaks a few words vocally and plainly, as "doctor," "money," &c.; but the rapidity of her finger talk (which is not that visible sign language in common use with deaf mutes, but the contact of finger-points on the palms and fingers, which is felt, not seen,) and the amount of her knowledge, not only of realities, but even of generalized and national knowledge, are truly astonishing. She started conversation with me by asking questions about Victoria, avoiding the word Queen. Was she a good woman? Was she not very extravagant? Was it really true that she kept forty horses? That must be extravagant, &c., &c. She was greatly interested about the "woman" Victoria, and what I told her about the Queen's simple mode of life outside State requirements. I was told that Dr. Howe had purposely abstained from any attempt to impart to her religious notions until he

thought her mind had become mature enough to accept them; but that, during his absence in Europe, she began, of her own accord, to make inquiries on the subject, and that she rapidly acquired not only general religious notions, but even possessed herself of the knowledge of the shades of belief which serve to divide and distinguish the different sects of Christians of Boston, and decided for herself which of them was most acceptable to her own mind, and has stuck to her choice. It would seem that in the brain of a New England Puritan, the tendency to form religious ideas was an hereditary function which could not be suppressed, though, in early infancy—to widen Milton's words,—“Knowledge at two entrances was quite shut out.” Laura can read rapidly and write well. She wrote on a slip of paper for me, in quaint plain characters, “Grace be with you. Laura Bridgeman.” Also she can sew, knit and braid; occupy herself in simple housework—sweeping floors, dusting furniture, making beds; and, in Dr. Howe's words, “in all these things she succeeded so well that she is now capable of earning a livelihood as assistant to any kind and intelligent housekeeper who would accommodate herself to Laura's ways.” Altogether, this poor blind and deaf mute is one of the most cultivated of human beings.

Another individual, interesting to the psychologist, whom I saw at Boston, was the boy murderer, Jesse Pomeroy. Alas that science should have to couple in one common interest beings so unlike as this personification of cruelty—whether he be sane or insane—with the gentle, affectionate and suffering woman whom I have just described! the depraved with the deprived. The Governor of the State asked me to see and examine the boy, although I told him that I should not like, as a foreigner, to express an opinion which might influence the course of justice. Therefore, in company with Dr. E. H. Clarke, one of those cultivated and sound thinking men, who in America, give so high a tone to the profession which they adorn and lead, I went to the gaol, and there thoroughly examined the condemned criminal for nearly an hour. Dr. Clarke and I quite agreed in the opinion we formed, as the result of this examination, which opinion it may well be that he, as a citizen of the State, has been called upon to communicate to the Governor, with whom rests the duty of execution or the prerogative of mercy. A curious law exists in Massachusetts, that no criminal shall suffer execution until a year has passed after his condemnation; and the Chief-Justice assured me that the principal reason of this law, was to provide against the possibility of new

evidence turning up, which might tell in the condemned man's favor. That no doubt, would be the reason which would tell most forcibly on the mind of a lawyer; but I think there may be other reasons which might lead our legislators to consider whether an extension of time between condemnation and execution would not be logical and useful in our own country. The first of these is, that it would provide an opportunity for real preparation by change of disposition; but on this I shall not dwell, as it belongs to religious and moral elements of thought. Another reason, which will seem weighty to psychologists, is, that the Massachusetts law gives time for the thorough investigation of the criminal's state of mind, and would render it impossible for a man to be hanged who was really of unsound mind, unless, indeed, he were hanged as a man of unsound mind, which was avowedly done by Baron Bramwell in the case of Dove. I do not know whether immediate or deferred execution would be the greater punishment to the sufferer. This would probably vary with different temperaments and states of mind. An imaginative coward would suffer immensely, by the prolonged expectancy of his doom, while to many another condemned man the prorogation of his final penalty would be esteemed a precious privilege, as affording sufficient opportunity to make real peace between his guilty and affrighted soul and his offended God. As an example to the great majority of evil doers, it would seem probable that to defer execution would increase its efficacy, for nothing strikes the mind of the criminal classes more forcibly than the slow, cold, impassive authority of the law, and nothing excites their imagination so much as the state of the living man condemned to death. A sudden death has few terrors, or we should have no wars, and dangerous employments would have to be more highly remunerated than they are. Jesse Pomeroy's crime or crimes, was the murder of two children by torture, inflicted by numerous stabs with a pocket knife. The first murder was only discovered on the commission of the second, after the interval of a year. The effect of these crimes on the public mind was such that the women of Boston in very great numbers, signed a petition that the criminal might be executed. This strange public act of the women of perhaps the most highly educated and civilized city in the world was no doubt due to the offended feeling of maternity, the victims having been children.

I can not quit Boston and its kindly and cultivated folk, who made my visit there so happy and interesting, without bidding it and them a word of affectionate farewell. They love the old

country, though they are proud of having taken the first step to break away from it. I was with them when they celebrated the centenary of Lexington, and the remembrance had no bitterness. And if they are proud of the past, they may well be so of the present, for in that day, I mixed with the great crowd of 150,000 New Englanders, the outpouring of the city, and the gathering of the country, into the villages of Lexington and Concord, and I sought for, but did not discover one man the worse for drink. In all that vast crowd, which I may even fairly call a mob, for it was a most disorderly assembly, there were no drunkards nor roughs, and the only policemen to be seen, were a few fat, slouching fellows round the President, who could not, however, prevent the mob from stealing his train, so that he had to wait for another. If there had been the average English element of roughs and drunkards, such a crowd must have ended in a riot, for the people did just what they pleased without interference. They climbed on and jumped off the roofs of railway trains, clambered in at the car windows, rode on the cow-catchers, surged over the roads and through the processions, and yet all in good temper, and stopping short of any positive mischief. All the day long I saw no quarrel or fight, heard no angry words even; there were no breaches of the people's peace, and the behavior of this curious crowd was to me the strongest revelation of what sobriety, culture and self-respect may attain to in the deepest and thickest layers of the population.

As for Boston itself, I wish we could steal the beautiful old city and float it over to this side, with its cow path streets, with its schools, where every child is compelled to receive a good education whether the priest likes it or not, with its population so greedy of knowledge, that they work the free libraries, as eagerly as ours would be likely to work free gin shops; and, above all, with its rich cornice of poets, scholars and philosophers. Before we unmoored the old place, we should have to drive in from the suburbs Emerson, Longfellow, Eliot, Jarvis and others; but Dr. Wendell Holmes, who is poet, philosopher and scholar, lives in the heart of the city, literally and metaphorically; he is the raciest of humorists, and most genial of citizens.

The National Asylum for the Insane, under the Superintendence of Dr. Charles Nichols, crowns the heights to the eastward of the Anacosta branch of the Potomac, some mile and a half from the Capitol at Washington. It is a fine building, in the castellated style, of red sandstone, with beautiful grounds, which, however,

like those of all American institutions, of whatever kind, are not in that trim condition to which English eyes are accustomed. Not much labor is thrown away in America on such unremunerative employments as mowing grass-plots and weeding walks. The gardens, however, are excellent and extensive, and there is a very fine farm, and the best dairy of Alderney and Guernsey cows I ever saw.

The asylum was originally intended to provide accommodation only for the insane of the army and navy and of the district of Columbia, but the insane of the preventive service and of the merchant marine have subsequently been admitted. There is proper accommodation for five hundred and seventy-five lunatics, but the actual number under treatment was seven hundred and fifty; yet the wards did not appear to me to be much overcrowded, probably owing to parts of the building not originally intended for occupation having been taken into use. The proportion of men to women patients was seven to two. New buildings for two hundred and fifty female patients are about to be erected on a site about the third of a mile from the present buildings, the estimated cost, with furniture, being \$350,000, or £280 per patient, which does not include ground, or ground-work, which in America is called grading.

Dr. Nichols is assisted by three assistant-physicians, and is under the control of a small committee, including the Surgeon-General of the Army and the medical head of the Navy. The wards were light, cheerful and cleanly, and were well furnished. Those for the women were especially cheerful and prettily decorated. Among the men just a little military discipline had been preserved, so that they formed in double line and stood at attention when called upon to do so. They were certainly very orderly and tranquil, and, as a connoisseur in such matters, I liked the look of them. They were, I should say, cheerful and fairly comfortable, kept in order, but not oppressed. They were well-clad and looked well-fed, and the commissariat department appeared to me to be very liberally and skilfully administered. Throughout the asylum there was no patient in seclusion, but I counted no less than eight in strait-waistcoats, not one of whom appeared to me to be suffering from excitement. They were probably patients from whose freedom of motion danger was apprehended. They were sitting quietly enough on the ordinary settles, though I observed that in two or three instances the strait-waistcoat was attached to the back of the bench. I must confess that I did not ask for any ex-

planation as to the employment of this restraint, nor shall I make any remarks upon it in this place beyond the observation that it must have been imposed because it was thought the best mode of treatment. The whole condition of the asylum would at once refute the idea that it was in any degree attributable either to negligence or disregard of suffering. Everything in the asylum bespoke minute and skillful care in the treatment of the patients; and here were eight out of seven hundred and fifty patients under mechanical restraint at the same time. No one in the States enjoys a higher reputation than Dr. Nichols, both as a skillful psychologist and as a humane and thoughtful physician, and therefore I trust he will forgive me if I say that he seems to be the best person I know to ask for explanations why his practice in the use of restraint differs so much from what we consider right in this country.

Separate from the main building is a smaller one, occupied by insane patients of the colored race. There was some amount of boisterous and noisy talk, which was mostly merriment, in these wards, distinguishing them, as might be expected, from those occupied by the sedate Americans. The colored man in the States is very rarely a negro; he is a man with negro blood in him, that is all. I asked in vain of my friends at Washington, where the colored element in the population is very large, to point out to me a full-blooded negro. When I pointed out some individual, either in the asylum or the streets, who appeared to me very black and prognathous, I was always told that he was not full-blooded. To see the real negro one must go quite south, and even there he is by no means common. The dark element, however, seems to be readily recognized, where to one ignorant of the marks of race, there is no sign of it. I spent a very pleasant forenoon in examining the school for colored girls, seven hundred of them, many of whom were quite fair, and I was astonished when the head mistress assured me, that, with one exception—viz., the French teacher,—every one in the building, both pupils and teachers, including herself, were colored people.

After Washington, I visited the Asylum for Criminal Lunatics for the State of New York at Auburn—a very well-conducted institution, having only one defect, but that a very great one. It is a prison rather than an asylum, with high walls and small court-yards, adjacent to the great Auburn Penitentiary. The governors are increasing its size by the addition of some excellent new wards; but why they did not remove it from the town into the country,

where excellent sites and abundance of land are so easily procurable, it would be difficult to surmise. The inmates of an asylum of this kind are, with very few exceptions, incarcerated for life, and many of them have enough intelligence to enable them to enjoy life if the conditions of life in which they are placed are not made too painful by monotony or repression; and if they are really innocent of crime on account of insanity, it is quite due to them that their life-long imprisonment should be made as little punitive as it is possible to make it, and to do so, an institution in the country, with garden, free air and space, is absolutely indispensable.

The Lunatic Asylum for the State of New York, at Utica, which I visited after leaving Auburn, and where I spent some instructive and most agreeable days, is better known to the outside world than any other similar institution in the country. This, no doubt, is due, to some extent, to its being the asylum of the Empire State, established in a part of the country long ago settled, and, in comparison to many other parts of the States, of almost ancient civilization. But to a far greater degree its reputation is due to the genius and enterprise of Dr. John P. Gray, its well-known Superintendent, who has for many years made it a brilliant school of psychology and of mental pathology. Dr. Gray and his assistant-physicians edit and publish the *AMERICAN JOURNAL OF INSANITY*, an enterprise which has been of the highest value in extending the knowledge of our science. One of his assistants, Dr. Theodore Deecke, devotes his time exclusively to pathological investigations; and is engaged at the present time in producing photographs of cerebral and spinal sections of wonderful size and accuracy. The positive and relative nature of drugs in the treatment of insanity is another subject which is systematically investigated at Utica; and, altogether, the utilization of the material for scientific inquiry which the institution affords presents a remarkable similarity to the great school of mental science which has been founded in Yorkshire by Dr. Crichton Browne.

The wards were large, cheerful and well furnished and decorated. The asylum has been built piecemeal; but the original building, with its imposing Doric portico of granite, is a lasting testimony to the liberal ideas of its earliest constructors. A very pleasant feature of the newer wards are the glass rooms in which they terminate. They are the exaggeration of bay-windows, and they not only add greatly to the light and cheerfulness of the whole ward, but form most comfortable and agreeable lounging or working

rooms. I assisted by my presence at some capital amateur theatricals, in which the actors were patients and attendants, and the audience of lunatics were neither dull nor disorderly. The recreation-room, however, is not worthy of the asylum, and the governors would do well to provide a better one. However, the accommodations all round are excellent; and if it were possible for us to send our best sample of a large asylum, which has done good work for many years, to the Centenary Exhibition, I doubt whether we could very much crow over the one which the Americans might bring to compete with us from Utica.

The asylum contains six hundred and fifty patients, more or less (for I forget the exact number,) and I was pleased to find that not one patient was either in restraint or in seclusion. I observed one young man in a state of great excitement, suffering, indeed, under the restlessness of the most acute mania. He was under the sole charge of two attendants, who were carefully walking about with him, holding him on each side, and I could not refrain from asking Dr. Gray why he did not order him into mechanical restraint, as it appeared to me just the case in which it would be justifiable, if in any. Dr. Gray replied that he did not use restraint,* but I found him indisposed to talk on the subject, as he admitted that his practice was not in conformity with the opinions of his professional brethren, and he evidently preferred to treat his own patients as he thought best without opening a blazing question. No one was in restraint in this asylum, neither was there any one in seclusion, and Dr. Gray informed me that for the last eighteen or twenty years the institution had not possessed a shower-bath.

On a visit to another institution, which I shall not indicate, I was introduced to a young man who was described to me as the supreme authority, his colleagues engaged in business leaving almost all the power in his hands. He was a *politician* in the American sense of the word, which is not complimentary, and had begun his official career as night-watch in a hospital, and the management of the institution over which he held sway presented a remarkable contrast to that of Utica. We have had, and indeed still have, experience of the same kind in England, but in America there is no central authority like that of the Secretary of State advised by the Commissioners of Lunacy, to overrule the ignorance or parsimony which may prevail in certain localities.

(To be continued.)

*This is a mistake. We do use restraint. I said we do not use seclusion and in this differ from some of my medical brethren.—J. P. G.

ASYLUM PERIODICALS.

BY JUDSON E. ANDREWS, M. D.

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Among the many means of moral treatment of patients in asylums, that have been and are now employed, there is no one which has attracted so little attention from writers in Psychological Medicine, as the one at the head of this article. We have looked through the files of all the journals in the English language, upon the specialty, and have not discovered any reference to the existence, either past or present of serial publications conducted by the inmates of asylums. It is not our intention to write an essay upon the advantages to be derived from such intellectual exercises, or to consider the subject in its relations as a means of treatment, but rather to put on record a historical account of such efforts, so far as they have come to our knowledge.

The first paper of this character was issued under the following circumstances. In 1837, one of the patients of the Connecticut Retreat, who had been a printer, and also an editor, repaired to one of the printing offices in the City of Hartford, and, with the assistance there obtained, issued two numbers only, of a little sheet called the *Retreat Gazette*. He remained under treatment for some time, and was finally discharged without being restored.*

"The Asylum Journal is the first regular newspaper ever printed in and issued from a lunatic asylum."†

This was published and printed at the Vermont Asylum for the Insane, located at Brattleboro. Its first number bears date November 1, 1842. It was originated by a young man seventeen years of age, a printer by

* Report Vermont Asylum, 1845.

† Vide same Report.

trade, who was admitted to the Asylum, July 15, 1842, and the general management of it was almost wholly in his hands during the first two years. Other inmates, however, contributed to its columns; it was a weekly, single sheet, ten by twelve inches in size. The terms were one dollar per annum, and the profits were to be applied to the support of the indigent insane at the Asylum. It bore the appropriate motto. "*Semel insanivimus omnes.*" "We have all, at some time been mad." It claimed as its object the dissemination of correct views of the condition and proper treatment of the insane. On the first of January, 1843, the price was reduced to fifty cents per annum, and was so continued for two years. At this time, as several who were engaged in its printing, were "considered by the majority of mankind to be sane" and left the Asylum, the *Journal* was issued only monthly, and the price was reduced to twenty-five cents per annum. After two years, making an existence of four years, it was suspended. Of the pecuniary aid toward supporting the indigent insane, we can not speak, but a substantial benefit to the patients and the Institution, was derived from its list of exchanges, which exceeded two hundred in number. In his report for the year 1847, Dr. Rockwell observes: "The printing of the *Asylum Journal* has been discontinued in consequence of the recovery of the printers, who have left the Asylum."

The next asylum periodical in this country, was the *Opal*. This was printed and published at the State Asylum at Utica, New York. It was begun on the 1st of January, 1851, issued monthly, in newspaper form, a double sheet, ten by twelve inches, and furnished at fifty cents per annum. Its motto was "*Devoted to Usefulness,*" and its object to increase the library of

the Institution by the profits, if any accrued, and to extend a knowledge of "our" wants to a generous public who can but be interested in "our" welfare. From the report of the Institution for 1851, we learn that during the first year of its publication it had "an exchange list of two hundred and twenty weeklies, four semi-weeklies, eight dailies and thirty-three monthlies, and that the number was still on the increase." It was continued in magazine form, double its former size and subscription price. In 1852, its exchange list was increased to over three hundred newspapers and periodicals, and the subscription fund furnished an addition of several hundred volumes to the library. In 1854, it is reported that the avails from the *Opal* and from the ladies fair amounted to four hundred dollars, which was expended in books, improvements to the green-house and in amusements. In 1855, the amount derived from the same sources was six hundred dollars, which were used to purchase an oil portrait of Dr. A. Brigham, the former Superintendent, and a piano. The report for 1857 contains the last reference to the *Opal*. "From our printing office are regularly issued the *Opal* and the AMERICAN JOURNAL OF INSANITY. The former, a monthly of twenty-four pages, now at the close of its seventh volume, is entirely original, and the production of the patients. * * * * * The large number of newspapers and magazines received in exchange furnish abundant reading matter for the entire household. The programmes for our entertainments and concerts, blanks, book labels, &c., are all printed in the Institution. In the building attached to the printing office, all of our exchanges and pamphlets are bound, and the successive issues of the JOURNAL and *Opal* are stitched and prepared for mailing." In appearance, the *Opal* compared favorably with the various subscription magazines.

The first page of the cover was ornamented with an engraving of the illustrious Pinel; the paper was good, the type clear, and the character of the articles interesting. It closed its career with the third number of the tenth volume. We quote from the valedictory. "We believe the world is wiser, if not better for our *Opal*. It has cleared up so many doubts, dissipated so many errors and wrong opinions concerning monomania and insanity. It has taught outsiders how little difference in ideas there often is between those within and those without the walls. It has shown how very difficult it is to tell where melancholy ends and insanity begins; how narrow the boundary between eccentricity and lunacy, and it might tell how much better insane people behave under the asylum code of etiquette than the world's votaries often do. It should have taught them that not a multiplicity of cares or anxieties is the chief agent in bringing about such mournful results, but the same enemy to peace,

'Which crazed King Lear,
The continual racking of brain with *one* idea.'"

The success of the *Opal* during the first few years of its existence was marked and gratifying. A large edition was printed, and most of it was advantageously disposed of. This flourishing state was, however, of comparatively short duration. After a few years the novelty to the public wore off, subscriptions declined, and exchanges were discontinued. During the last three years an examination of the books, which were kept by an Assistant Physician of the Asylum Staff, show that the receipts amounted to less than the expenditures.

Other causes were also operative; some of its best contributors recovered and were discharged; the editor, the printer and the binder, declined in mental

power, from the progress of disease, and soon after all died. The breaking out of the war in the spring of 1861 turned the minds of all the household in that direction, and they became much interested in laboring for the cause of the soldiers. This took the place largely, of the work formerly done upon the *Opal*, and of the fairs. The report of that year shows that the female patients and attendants, employed their leisure time in sewing, knitting, or making lint for the soldiers, and that the men contributed \$306.50 in money, which was largely expended for the material worked up by the ladies.

A long interval elapsed before another newspaper venture was made in an American Asylum.

The first number of the *Meteor* was issued in July, 1872, from the Alabama Insane Hospital. This is a quarterly, single sheet paper, nine by eleven inches. It bears the motto "*Lucus a non Lucendo*," which may be freely translated "Light out of Darkness." It is edited by a patient, and printed at the Hospital by patients. Original communications only are received. Its edition of several hundred copies is distributed to papers and patrons of the Hospital. "We have hauled down our subscription rates, and will in future receive no subscriptions for the paper." The object of the paper "is to keep the press, the people of Alabama, especially the patrons of the Hospital, *en rapport* with the doings of the institution, and well abreast with the most advanced views in the care and treatment of the insane." In the accomplishment of this purpose its columns are largely filled with news of events transpiring in the Hospital, and items from other institutions collected from exchanges. It is pleasantly written, and we doubt not affords amusement as well as substantial advantages to the patients.

The *Friend* was the title of a paper of the same size as the *Meteor*, issued from the Pennsylvania State Hos-

pital, at Harrisburg, and "conducted by an Association of Ladies." It commenced its existence as a monthly, in September, 1872, and was published regularly till April, 1874. The subscription price was fifty cents per annum. Of its special aim and object we gain no information from the number before us. From a letter from Dr. Curwen, the Superintendent of the Hospital, we learn that nearly all connected with it, left the institution some time since, a fact which accounts for its suspension. It was a sprightly little sheet largely made up of short witticisms, many of them excerpts. Its brief existence and its early death leave us little to say, and this should be only good.

This completes our record of American Asylum serials. Our English brethren, however, occupy the field with the following list, which we copy from the *Excelsior* for January 1873.

So far as we are aware, the following are at present the Literary Serials issued from, or by, Public or Private Lunatic Asylums in this country—its representatives, therefore, of "Lunatic Literature."

1. Dumfries: "*The New Moon: or Crichton Royal Institution Literary Register*" . . . "Printed at the Crichton Press, by Adam Richardson." 4vo, 4pp. Published monthly, price 6d. Begun in 1844: now in its 29th vol., and 337th number. Its motto is

"'Tis with our judgments as our watches: none
Go just alike: yet each believes his own.
In Poets, as true genius is but rare,
True taste as seldom is the Critic's share:
Both must alike from Cynthia borrow light,
These born to judge as well as those to write."—POPE.

2. Edinburgh: "*The Morningside Mirror*." . . . "Printed at the Royal Asylum Press: Price 3d or 3s per annum if delivered in town: 3s 6d if by post. Orders and subscriptions to be addressed to Dr. Skae, (now Dr. Clouston,) Royal Edinburgh Asylum. The profits are devoted to the Reading-room of the Asylum," 8vo, 8pp. Begun in 1845: now in its 28th vol., No. 3. Published monthly. Motto "*Peritura parcite charta*."

3. Perth: "*Eccelsior*: the Murray Royal Institution Literary Gazette," begun in 1857—published at irregular intervals—at least once a year: 4to, 8pp. Printed in Perth.

4. York: "*The York Star*," issued by "The Asylum, Bootham, York." Begun in 1857: now in its 14th vol., No. 4. Published quarterly: 8vo, 8pp. "Price 6d, or 2s per annum, post paid. Orders and subscriptions to be addressed to Dr. Needham." Motto "*Lectorem delectando, pariterque monendo.*"

5. Church Stretton, Shropshire: "*Loose Leaves*," issued in connection with two Private Asylums—one for ladies, conducted by Mrs. Bakewell—the other for gentlemen under Mr. William Hyslop [who is also Editor:] the Physician to both being Dr. McIntock. "Published by Baillière, Tindal & Cox, (29 King William Street,) London; Paris and Madrid: and printed at the Journal Printing Works, No. 6 Cannon Street, Birmingham." Issued at irregular intervals: "Price one penny." Motto

*"Lusus animo debent aliquando dari
Ad cogitandum melior ut redeat sibi."*

the free translation of which is

"We must divert the mind to be able to think."

Dr. Needham in *Eccelsior* for January, 1874, says: The *York Star* was started by myself in January, 1861, and it has appeared at quarterly intervals since that time. Its objects were and are—(1.) To induce those patients possessed of the requisite capacity to engage in literary efforts with an object; (2.) To stimulate the same persons to read and converse with their fellows; (3.) To give an interest and afford subjects of conversation to the whole population of the Asylum; and (4.) To be a repository of really valuable matter, and a record of our doings in the way of amusement and recreation. All these purposes it has fulfilled beyond my expectations. I have made it a rule throughout, that the publication should be what it professes to be—written *entirely by patients*. No part has been, or is taken in its composition by any sane person.

From the same source we also learn that, at the Gartnavel Asylum, there was published in 1848, *The Chronicles of the Monastery*. This had a short existence. There was also issued from the same Institution the *Gartnavel Gazette*. This was first published in March, 1855, and was continued weekly till the fifth of July following, when the last number appeared.

There are now printed in the English language, six serials, one in the United States, two in England, and three in Scotland. Of these, two are monthlies, two quarterlies, and two are published at irregular intervals. To render such publications really interesting and of any psychological value, they should contain the delusions, the vagaries and incoherences of the insane mind. Too often they are only sane productions, and like the corrected composition of the school boy after it has passed the rigid scrutiny of the master and been prepared for a public rehearsal. The editor, not infrequently himself sane, removes therefrom all evidences of abnormal mental action, and substitutes his own normal thought and modes of reasoning. A glance at almost any of the serials will convince of the truth of this position. That some direction in the way of editing is needed, cannot be denied, but the extent to which this should be allowed is well expressed by Dr. Needham in regard to the *York Star*, "I edit to the extent of arranging and selecting the articles sent in; but I print them as they come into my hands, without alteration."

The cause of the failure of so many asylum productions, is found in the changeable character of the population of institutions, and the loss of novelty to both patients and the public. It is true, as with the outside world, that but few persons possess the requisite qualifications which render them capable of conducting a publication, or writing for it. Even when found, in a comparatively short time, they either recover or pass to a condition of feeble-mindedness, which incapacitates them for further literary efforts. In these causes we find the short existence of such issues, and their failure to properly represent the phases of insanity, which alone render them valuable.

PREPARATION OF TISSUES FOR MICROSCOPIC EXAMINATION—AN ACCOUNT OF THE METHODS AND APPARATUS EMPLOYED.

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Any one familiar with microscopic literature will know that Scientific Journals abound in communications upon this subject. Microscopists in the main, originate their own methods of manipulation, and the knowledge of the preparation of tissues, still imperfect, has been derived mainly from multiplied experimentation. In my early microscopic labors in 1856, I published an article on embryology in phanerogamic plants under the auspices of Prof. H. Burmeister of Halle. I became acquainted with a number of distinguished observers, as Joh. Müller, Alex. Braun, H. Schacht, Otto Deiters, Max Schultze and N. Pringsheim, and then learned that each felt that he had the best instrument, and that his methods of preparing objects were better than those employed by his co-laborers. To a certain extent this must always be true. At present a good instrument can be purchased at a moderate price, and though great improvements have been made in the optical parts, the best microscopes are more simple than formerly. It is, however, the skill and experience of the observer himself which makes an instrument valuable. So of any apparatus for facilitating the work. The best constructed modern section cutter does not differ essentially from the simple perforated disk of thick plate glass, with its soft cork, having within it the specimen. Indeed the dissecting needles and knives employed have been as manifold in form as the hands which have handled them. Numerous as are the

machines invented for moving the knife, no arrangement has ever surpassed that of the hand guided by skill and experience. Of the various processes for hardening and staining tissues each has advantages, but after all, the best results will depend upon the patient care and practice of the operator, quite as much as upon the selection of the media employed. The application of photographic processes in micrography must also be of importance to science, in proportion to the accuracy with which each specimen is represented. In inaugurating this department, Dr. Gray has given credit to Dr. J. J. Woodward, of the United States Army, and we might refer also to Lionel Beale, A. Moitessier Gerlach, Benecke and others, who have labored in this field with success. But, however valuable this process may be it has never been contemplated that it should supercede drawings, or the necessity of recourse to the natural objects themselves, hence Dr. Gray has directed the preservation, from the beginning, of all specimens, for comparison and study. It is indisputable that a good drawing may be more instructive to the novice in microscopic study, than the micro-photograph.

The higher the magnifying, and the greater the defining power of the lenses employed, the more necessary it is for the observer to constantly change the focus, forward and backward, in order to obtain a true idea of the object under observation. He is thus compelled to construct the natural form from these changing appearances, while the art of drawing will enable him to reconstruct, on paper, the objects as a whole, and in all its details, which can never be accomplished in a photographic representation, in which only those parts which can be brought as near as possible in one plane, will be given with sufficient distinctness. So we find certain limits for each method of investigation employed,

and for each mode by which we attempt to facilitate our work. To designate these limits is quite impossible, for one observer might, be at once successful in a certain case, where another, with all his pains and patience accomplishes nothing. Among several hundred isolated ganglion cells, of the cerebral cortex, perhaps only a single one will expose the relations of the axis-cylinder to the body of the cell itself, while only one among thousands of these may offer an opportunity for demonstrating this relation in a micro-photograph. A solution of bichromate of potash or ammonia, of a given strength, for hardening the delicate structure of a convolution of the brain may give the best results in one case, and not in the other, because its action varies with the condition of the tissues themselves, as well as with the temperature. It is frequently due only to these facts that there exists such a discordance between the formulæ for preparing the solutions as recommended by the various authors. It is, therefore, not my endeavor in the following pages to criticise this or that method or to place the methods employed here above those recommended by others, but simply to describe those we have adopted and found most successful. The experienced microscopist, will, perhaps, not detect anything new of importance, yet all have been approved, and the novice can but be warned against spending too much time in new experiments. There is still a wide field which can be successfully cultivated by employing the old practical methods as recommended by Gerlach, Deiters, Max Schultze, Beale, etc., of which mine are only offsprings.

I here confine myself to the preparation of the tissues of the nervous centers for examination. Many physiological and anatomical facts, in combination with pathological observations, have led to the recognition of at

least a certain number of so-called localizations in the nervous centers, that is to the acknowledgement of the fact, that certain districts of the grey matter are in a more intimate connection with certain sensory or motory nerves than other districts, and that these "centers of innervation" again are connected with certain districts of the grey cortex of the convolutions. So we speak on the one hand, of the nuclei (group of ganglion cells) of the twelve cranial nerves of the medulla oblongata, the pons, the optic thalamus, etc.; of the close relation of the optic thalamus to sensory; of the corpora striata to motory functions, and, on the other hand, of the intimate relation between the parietal convolutions and the special nerves of sight and hearing, and of other relations at present established with more or less certainty.

It is therefore the intention at present, not to confine our investigations to the examination of small particles of brain substance, or of the spinal cord taken here and there, but to proceed in each case methodically, from the cord upward into the medulla, the pons, etc., and into each convolution of the hemispheres; in other similar cases to put up collections of successive sections through the whole organ, thin enough to allow an examination with objectives from a two inch up to the one-quarter inch; and finally to make sections, in each case, cut in other directions.

For the examination of smaller parts of nerve tissue, in order to obtain a knowledge of its normal structure, and of pathological changes which might have occurred, I would invariably recommend the examination of thin sections, made through the fresh substance, and teased out with fine needles under the simple microscope, magnifying from about fifteen to one hundred and twenty diameters. The sections are placed in iodized blood

serum, and at first the blood vessels are traced to their finest ramifications and isolated; a frequent examination of the specimens, without a cover, under an objective of a third of an inch, will be of great service, and enable the operator, even to isolate a number of ganglion cells with their processes, and also the cells of the connective substance. The one-third of an inch will decide if the dissection has been successful. The insulated specimens are collected in the center of the glass slide, by the aid of a finely polished needle, or glass rod as fine as a hair. The other parts are removed, and a cover wet with a weak solution of arseniate of soda or potassa is placed upon the slide. The surrounding fluid is as much as possible removed by the aid of blotting paper, and then the whole covered with very finely powdered gum arabic. The excess of this is immediately removed with a soft camel's hair brush, and the covering glass afterward surrounded by a border of Dammar-lac or Brunswick-black. Fresh specimens mounted in this manner will keep for a long time. In examining small parts of nervous tissue, it is of course necessary to follow a certain plan as above mentioned. In regard to the brain itself, I have adopted the description of the cerebral convolutions, and the terminology of Alexander Ecker, which rests on the study of the development of the convolutions in the foetus, and which I consider the best and the most simple one which has been offered. From the examination of the fresh nervous tissues, we proceed to that of the sections made through the hardened substance.

As the general hardening agent for animal tissue, alcohol is used. Its action depends upon depriving the tissues of water, and coagulating the dissolved albuminous and proteinous compounds. Besides this action it is apparent that the alcohol dissolves

many of the fatty compounds which impregnate especially the tissues of the nervous centers. If the alcohol used as a hardening agent is not frequently renewed it will soon be saturated with these materials and some of them will be deposited in smaller or larger crystals inside as well as outside of the tissue. By these processes, of course, the finer structure of the organs might become sometimes greatly impaired. As far as I have experience it is due to this fact, that alcohol, as a hardening medium has so many opponents. But this can be easily remedied by first applying diluted alcohol, by frequently changing the liquid and gradually increasing the amount of alcohol. From this course I have always had the best results. Nevertheless, I have found it of great service, first to apply other liquids, as weak solutions of chromic acid, bichromate of potash and bichromate of ammonia, or to combine these with diluted alcohol. Thin sections, however, especially of large size, can not be made without the aid of alcohol. The process of hardening small parts of nervous and brain tissue adopted, is the following. Small parts are first placed in a solution of bichromate of potash, or ammonia of one grain to the ounce of water, they are kept in a refrigerator, and the liquid is changed once every day by increasing the amount of the salt, at least, every third or fourth day in the proportion of one-half grain until it equals eight or ten grains to the ounce of water. The specimen is then placed in diluted alcohol, one part to one part of water, and the liquid is changed every second or third day, the amount of alcohol being increased until absolute alcohol comes to be used, from which time, it will, after a week or two, be prepared for making the finest sections.

The formulæ here given are for hardening the healthy tissues. If the organs are in a diseased condi-

tion, indurated, hyperæmic, œdematous or softened, it might happen that the liquids would not act with the effect desired. It is therefore quite necessary to watch carefully the changes which the specimens undergo, in order to increase or decrease the strength of the solutions as required. The general principle is to commence with these as weak as possible. It is necessary that the specimen jars should be kept in a refrigerator, surrounded with ice, as the constant low temperature guarantees on the one hand a slow and uniform action of the hardening agent, and on the other prevents decomposition. The time after which the process is finished varies with the size of the specimen, and with the condition of the tissues; the cord, the medulla oblongata, the pons, parts of the cerebellum, about one by two inches, require from one to three months; single convolutions of the hemispheres, in general, a little more; the whole brain from eighteen to twenty-four months. The tissue hardened in this manner, and afterwards preserved in alcohol, will exhibit no alterations which might erroneously be taken for pathological changes. If alcohol is used at once, this might and does frequently occur; smaller or larger spots will be observed from the deposition of crystalline masses inside of the tissue, which often resemble the patches of disseminated sclerosis. By the processes of staining, washing, clearing up and mounting of the section, they will, it is true, mostly disappear. It is, however, quite necessary to become familiar with their different aspects by close study.

The tissues thus prepared are ready for sections, for making which I always employ section cutters. Those we use, consist of heavy brass cylinders, of different sizes, from one inch to nine inches in diameter, and from two to fourteen inches high, and closed at the

bottom. A closely fitting piston from one-half to three inches thick, is moved from the bottom upwards, by a strong but fine micrometer screw, with sixty threads to an inch; the head-piece of the screw is divided into twenty degrees, so that the piston can be raised with great ease the twelfth-hundredth part of an inch, thus graduating accurately the thickness of the section. The upper surface of the cylinder, upon which the knife has to rest, is mathematically even, and must be ground off and polished on the same plate as the lower surface of the knife, so that the two correspond to each other with the highest degree of accuracy. The knives correspond in size to the section cutters. For the largest of these we use a blade with upright handles; the cutting edge is sixteen inches long, one and one-half inch broad, and one-quarter of an inch thick at the back, to which a steel rod is attached by screws which projects about one-sixteenth of an inch downwards, so that the knife, when placed upon the section cutter, rests only upon its edge and the rod, leaving a hollow space between its lower surface and that of the cylinder, to prevent, as much as possible, an adhesion between the two. When the instruments are made accurately, this arrangement enables the operator to move the knife forward like a saw, while the weight of the knife itself is almost enough to prevent any deviation from its course. For the smaller section cutters, of course smaller knives are used with only one handle, which are lighter and thinner, but the manner of cutting is the same, and here the forefinger placed with a little force upon the knife, will prevent a deviation from its horizontal course, which might be produced by the resistance of the object through which the blade cuts its way.

This manner of cutting, of course, demands great practice, and a light, firm and steady movement of

the hand, but no machinery can be constructed superior to its guiding, as a deviation of the knife of less than one-two-thousandth of an inch can be felt. The specimens for section are embedded in a cast of paraffine and oil, eight parts of the former to one of the latter, adding a little more of the oil in the winter. This, of course, has to be done very carefully. The specimen is first placed upon a piece of cork in the center of the piston, and in exactly that position which is desired. This is very difficult and requires all the skill and attention of the operator, since the whole success depends upon it. It demands a knowledge of the general and special structure of the specimen; the frequent application of the magnifying glass and measuring rods, which correspond to the surface of the section cutter, will facilitate the work and are necessary. When the right position is attained, and the object dry on its outer surface, the paraffine mixture is poured over the specimen in a slow stream until it fills up the whole cylinder. The piston bears on its surface about four or six curved rods, which project about one-half inch, as high as the cork upon which the specimen rests, in order to keep the paraffine cast in position. The cast itself must not be too warm, but just at the point of becoming solid, when it is poured into the cylinder, and it must be pressed down against the walls of the cylinder, by the aid of a spatula as long as it is plastic, in order to prevent a retraction from the specimen as well as from the walls of the cylinder. When the cast has become perfectly hard and solid, it has to be cut down and removed, to the depth of about an inch, so that there remains only a border of about one-half of an inch, which surrounds the specimen. The cylinder is then filled up with alcohol, and a constant stream of it is poured upon the

knife and the specimen, while the section is being made. For making the larger section through the whole brain, the section cutter is placed in a basin filled with alcohol, so that the section is cut swimming in the liquid, where it is caught on a piece of writing paper, and with this immediately afterward transferred into another basin, in which it is kept covered with alcohol for further manipulations. The sheets of paper are numbered so as to present the sections in their order. The smaller sections may be at once transferred to numbered watch glasses, placed upon a table, each of which must be covered by a small glass plate. The great majority of these sections will be perfect in every respect, and uniform in thickness, but though occasionally a section may be a little torn or injured, it should nevertheless be kept for examination. After each tenth or twelfth section the knife should be drawn over a strop. I use for this purpose a piece of linden wood twelve by four inches, and three inches thick, ground level and covered on one side with the very finest emory paper, and on the other with leather. Too much attention can not be paid to keeping the knife in good order.

Two other manipulations to which the objects for microscopic examination are subjected, are those of metallic impregnation, and of staining, the former more suitable for the fresh tissue, the latter for hardened specimens.

The process of metallic impregnation depends upon the reduction of a metallic salt or acid into a lower grade of oxidation or into the element itself, by the action of organic substances, following which the new products are deposited, either in combination with organic compounds or "*per se*" in a molecular state inside of the cells of which the tissue is built up. As

each cell is an individual structure, it exhibits a peculiar affinity for agents, thus acting upon it, which frequently enables us to make the cellular structure of organs and tissues visible, where otherwise the uniform refraction of light would thwart all our efforts to detect any details of organization. Even the finer structure of the cells themselves may be exposed.

Of all the different agents recommended, I employ only the nitrate of silver and the hyperosmic acid; the former in solutions of 0, 5 to 0, 1 per cent. The specimens treated in the solution, are repeatedly washed in distilled water and exposed to the light until a brownish color is acquired when they are mounted in glycerine. The treatment with hyperosmic acid is with a solution of 0, 1 down to 0, 05, even to 0, 01 per cent. Stronger solutions act at the same time as a hardening agent, which preserves the most delicate and perishable tissue in its natural condition, but the specimens placed in such solutions must be of very small size, and the action must be carefully watched, since, sometimes after a short exposure they become quite hard, and of a very dark color, which render them unfit for examination. By the aid of such metallic impregnation we can detect the cellular structure of the most delicate membranes; we can demonstrate the termination of the nerves in the different organs of the body, and the elementary structure of their peripheric expansions; the primitive fibrilla of which the axis-cylinder of the nerves is composed, will be made visible, and we can trace up its connection with the ganglion cells situated in the grey centers of the cord, in the medulla and the grey cortex of the cerebral convolutions. In regard to the finer structure of these ganglion cells, it is true, there is a diversity of opinion, and it is still an undecided question whether the fibres which enter

the cells, in reality terminate or originate there, or whether they only pass through them by a reunion of the primitive fibrilla. My own observations are in favor of the latter view, first expressed by the late Prof. Max Schultze. If this shall be confirmed by further investigations, it will establish the most interesting fact, that only the peripheric expansions are to be considered as the true points of origin of all nerves of the body, and that the ganglia of the central organs are the places where the conversion of energy is performed, by which sensory impressions are again made sensible, and active in the form of the motory functions of the organism.

The second manipulation by which the study of structural arrangement is to be facilitated, is that of staining the tissues. It depends upon the affinity of a great number of organic compounds for certain coloring materials. The number of these, as recommended by practical microscopists, is very great. They are in general the same as those employed in dyeing establishments. As one or other element of a tissue may show a peculiar affinity for a certain coloring matter, the use of all these agents will, at times, afford satisfaction. However, after studying the effect of many of them I can find no reason why I should part with the excellent carmine process, first presented by Prof. Gerlach of Erlangen. The discredit into which it has been brought by some authors, must be, as far as I have experienced, due either to the employment of an inferior quality of carmine or to a careless preparation of the solution. The carmine should be of the very best quality, the solution should contain no free ammonia, and should be sufficiently diluted with water and a little alcohol, so as to allow a slow and uniform imbibition by the tissue. The only alteration of the method

of Gerlach which I have found practical, and which I must recommend, is the use of tartaric acid in the proportion of one part to a thousand parts of water, in place of acetic acid, for fixing the color. The tartaric acid has no effect upon the tissue, which can not be said of the acetic acid, and it gives the carmine a bright and beautiful tint. The liquid is thus prepared; the carmine is divided in a little water in a mortar and dissolved by adding small quantities of liquid ammonia, sufficient to make a clear solution. The liquid has to stand in the vessel, and be frequently stirred, until the surplus ammonia has entirely evaporated; it is then diluted with a mixture of water and alcohol, four parts of the former to one of the latter, and after it has settled for a day or two is ready for use. One ounce of carmine will make about a pint of the concentrated liquid; it must be perfectly clear, but should not be filtered, and will then keep for any length of time. For the purpose of staining, the liquid is diluted with a mixture of water and alcohol, four to one, until it shows the color of common claret. The alcohol is then poured off from the specimens contained in the watch-glasses, and these are filled with the staining solution. I use for smaller sections a stand with eighty-four glasses. During the process of staining they are not covered with the glass covers, but only by paper—strong writing paper spread over a wooden frame. This arrangement allows the alcohol to escape; the liquid gradually becomes more concentrated, and turns into a pure watery solution as the result of which, on the one hand, the color is more uniformly deposited, while on the other, the tissue, by absorbing a little water approaches more its natural condition. The larger sections, through the whole brain, are placed in a hard rubber pan of considerable size, together with the paper sheet upon which

they are spread out; they are by this means easily handled and transferred from one vessel and one liquid into the other without any danger of being torn or injured. The smaller sections remain in the staining bath, for about twenty-four hours, or longer, without any harm, the larger ones about forty-eight hours, but after the first twenty-four hours they must be turned over in order to prevent an unequal coloring on the side facing the paper.

After staining, the specimens are washed several times in soft water. The smaller ones in the watch-glasses remain there; the carmine solution is replaced by the water; the glass is cleaned by the aid of a camel's hair brush from the carmine which adheres to it; the same process is repeated three or four times, and immediately after this, the tartaric acid solution (one to one thousand) is poured over the specimen. The larger sections are transferred into a trough filled with soft water; they are turned over three or four times, and the water is changed as long as it is colored, then the pan containing the tartaric acid receives them. The fixing of the color will be done in a couple of hours; the specimens are again washed in water, then twice in diluted alcohol, twice in stronger alcohol, and twice in absolute alcohol, which finally is replaced by oil of cloves, in which the specimens only protected by a paper cover may remain for a week or two, after which time they are ready for being mounted in Canada-balsam or Dammar, as may be desired. The management of the larger sections and their final mounting offers no difficulties. The supporting paper sheet has, of course, to go with them through all the processes. When the specimen is placed upon the glass slide for mounting, it is easily pulled off. The last soaking in alcohol and oil of cloves requires, of

course, a little more time. Before pouring the Canada-balsam, dissolved in chloroform, upon the specimen, it will be found always of great service to put everything in the right position, and to remove, under a lens, magnifying about fifteen times in diameter, all foreign bodies which might adhere to the specimen, with a soft camel's hair brush; a repeated washing in filtered oil of cloves will facilitate the work; the oil should then be removed as much as possible before the Canada-balsam is poured on the slide.

Of the smaller sections through the cord, through the lower half of the medulla oblongata, or through single convolutions, three specimens can be placed upon one slide of the ordinary size, which facilitates the examination and the comparison of the specimens. The largest slides employed by me are six by eight inches: for these, of course, the largest instruments made by the manufacturers are insufficient. The one devised by me and made to order by J. Fassoldt, combines some of the mechanical principles adopted by Powell and Leland, and by Beck, but a great number of new arrangements had to be added for the easy management of an apparatus of such weight and dimensions. The height of the instrument from the heavy triangular plate upon which it rests to the arm to which the tube is attached, is eighteen inches. It can be placed in any position from the vertical to the horizontal, by the aid of a horizontal screw at the base, twelve inches long, with a handle at the back side in front of the operator. The arm which bears in it, after the principle adopted by Powell and Leland, the arrangement for the fine adjustment is twelve inches long; the stage consisting of two heavy moveable plates is twelve by twelve inches. Two large screws on the right and left side of the stage, move the stage upward, downward

and to each side, allowing a motion of four inches from the center, in each of the four directions. On the upper surface the stage bears a peculiar arrangement for supporting the slides. To the left front corner of the stage, a right-angled arm is attached, movable against a spring, the end of which projects downwards to the center of the stage, while in the center of the hind part projecting upward, a double-armed supporter is fastened, with an opening angle from 10° to 160° . This allows slides of any size from one by three inches up to six by eight inches to be placed between these arms. The stage at its lower surface bears a rotating diaphragm with openings of all sizes.

The two illuminating mirrors, (plane and concave,) are silvered and fastened to the stand in such a manner as to permit of the greatest freedom of movement, for oblique position, etc.

The great advantages of an instrument of such dimensions are evident. It is on the one hand not deficient in any approved mechanism, carried out in smaller instruments; while on the other hand new problems had to be solved, which naturally led to improvements, or which demanded entirely new arrangements. It may be permitted us here to mention a few of these. The mechanism for inclining the microscope imitates the principle adopted by Beck, in London, in his *Student's Microscope*. Two triangular plates, of which the larger one forms the base upon which the microscope rests, are movable against each other, in joints connecting their base-parts, while the point or head-part of the upper one is attached by a hinge to the bar which supports the instrument. The bar terminates in a projecting point which can be inserted into holes crossing the base triangle in a perpendicular line. The angle of inclination, therefore, of the instrument will

be changed according to the location of the hole selected in which to insert the bar. In our instrument the bar is set by a screw fastened in the perpendicular line of the base-plate, which moves in a so-called endless mother-screw attached by a proper arrangement to the bar. It is by this addition that the whole mechanism has reached the highest point of perfection. The impossibility of managing an apparatus of such weight by the unaided hand, of course, has originated this improvement. With it, however, new difficulties arose. The more the instrument approaches a vertical position the greater is the pressure upon the screw; another arrangement became necessary in order to reduce this pressure as much as possible by supporting the instrument. This has been accomplished partly by having recourse to the principle of the inclined plane, and partly by counter-pressure of a spring, of sufficient strength, which, at a certain point, acts with gradually increasing force against the base-part of the bar.

In regard to the fine adjustment, one of the most important parts in the mechanism of the microscope, we started from the excellent lever-adjustment of Powell and Lealand. In its present state, however, it hardly resembles its original. The arm of our instrument to which the observing tube is attached, has a length of twelve inches. At such a distance, the simple spring-lever, upon which the fine adjusting-screw plays, was found to be in a constant trembling motion, affected by a loud noise or the slightest concussion in the neighborhood of the instrument. It was, therefore, necessary to construct a most complicated balance-movement, which, however, can not be easily described without an illustration. A similar incident occurred in regard to the mechanism employed for moving the stage upwards and downwards. This is generally

accomplished by the aid of a cog-wheel. In the inclined position, however, of our instrument, we found that the weight of the stage-plate was too heavy to be supported by that simple arrangement. The slightest touch of the screw, attached to the cog-wheel, was sufficient to throw the object under observation, out of focus. It was, therefore, necessary to have recourse to a double movement, made by the aid of endless screws, which obviated all these difficulties.

We now proceed to the illustrative representations of microscopic objects. Amici of Florence, by making the Wollaston camera lucida practically applicable to the use of microscopists, greatly facilitated labor in this direction. The drawing of the magnified image, projected by the camera upon paper, offers in itself no difficulties, but requires a skillful hand and artistic knowledge. It is liable, of course, to error, so far as the subjective judgment of the observer is concerned. The attention of histologists, was therefore, soon directed to the entire revolution in that branch of art by the discoveries of Daguerre. In the year 1840, Donné presented the Academy of Science, in Paris, a number of Daguerreotypes of magnified histological preparations taken directly from the microscopic image. In 1845, in conjunction with Léon Foucault he published an atlas of the liquids of the organism, the numerous illustrations of which, were engravings copied from Daguerreotypes; (*Atlas du cours de microscopie exécuté d'après nature au microscope daguerreotype par A. Donné et L. Foucault, Paris, 1845, Folio.*)

The albumen and the collodion process, the art of printing and fixing the image on paper, promised further advantages, and the greatest efforts were put forth in all quarters to make the new invention useful to science. This was done at first in conjunction with

practical photographers, but soon the microscopists found it indispensable to procure for themselves enough practical knowledge of the photographic processes to meet their own wants with success. Since that time micro-photography has been gradually progressing, although it has not acquired its highest point of perfection; yet this is due more to defects on the side of the optical parts of the instruments, than to the methods which are employed.

In our own labors in this direction, we have adopted in general, the plan devised and employed by Dr. J. J. Woodward of the United States Army. In it he does away with the use of the camera attached to the microscope, by placing the screen upon which the image is projected and drawn, in a darkened room, which constitutes the camera, as was formerly done in demonstrations with the sun-microscope. Our arrangements are as follows.

The heliostat is located, at a high point of the building, upon a platform, outside of a window facing the south. It rests on three screws which work upon iron pillars inserted into a heavy iron plate which runs on a track, so that it can be drawn back to a movable stand inside of the room and kept covered by a glass case, when not in use. The tracks are laid in such a direction that the instrument, when placed outside, stands with the axis of its receiving mirror, exactly in the meridian of the building. The main mirror is kept in motion by a chronometer clock-work. The receiver, as well as reflector, is of thick Belgian plate-glass eight by six inches and six by six respectively, and both are, by a chemical process, silvered on the face and finely polished, so as to increase the light and definition. The reflector is movable in all directions and can be managed from inside by two long handles attached to the heads of its regula-

ting screws. The heliostat is provided with a compass, two levels and an adjusting box in front of the receiving mirror, in order to place the same, at once, according to the altitude of the sun in the right position.

The window is closed by strong wooden shutters with a sliding door on each side, large enough to observe, and if necessary, to manage the instrument from within. In the center of the lower part of the shutter opposite the reflecting mirror of the heliostat is a circular hole four and one-half inches in diameter, to receive the frame of an achromatic condenser of four inches in diameter and eighteen inches focal distance. The condenser can be turned, by the aid of setting screws, around its horizontal as well as its vertical axis. At the outside, the frame is connected with a blackened cylinder four and one-half inches in diameter and twelve inches long for the purpose of excluding all direct sun rays from the condenser. Projecting from the inside into the room, a conical brass tube fourteen inches long and tapering from four to two inches in diameter, unites the frame of the condenser with a perforated wooden planchette, to which a velvet mantle is attached for covering the microscope.

The microscope itself rests in a horizontal position upon a solid table which can be raised and made level by the aid of four screws, and which is held in position by two vertical bolts inserted into the projecting sill of the window. The specimens fastened upon the now vertical standing stage of the microscope are illuminated directly by the focus of the sun. In order, however, to operate as much as possible in homogeneous light and to exclude the heat and the non-acting rays, the light passes between the condenser and the specimen through a cuvette, with parallel walls of the finest plate glass,

which contains a weak solution of ammoniated sulphate of copper, composed as follows: sulphate of copper twenty parts, water one hundred parts, liquid ammonia q. s. to dissolve, then dilute to three hundred parts.

Before entering into further detail, it may be permitted us here to make a few general remarks.

The microscopists and the students of histology have hitherto confined themselves to the use of the simple and compound microscopes as they are offered by the manufacturers. I have already stated that the best and the largest stands to be had, are insufficient to meet all the wants of the present state of science. The same is the case in regard to the micro-photographic representations of the objects under observation. As topographical anatomy is the foundation of all our anatomical knowledge of the organism, so the topographical histology of the different organs is the foundation of histology itself. As the organism is a unity of a multitude of organs, so each organ is a multitude of histologically differentiated formations. In order to obtain, therefore, a true knowledge of the elementary constitution of an organ, it is just as indispensable to examine the organ as a whole, that is to enter into a thorough investigation of the anatomical relations and arrangement of its elements, as to study the natural conditions of the elements themselves. For the latter purpose the microscope, in its present state is of the greatest service. This is not so in regard to the former. The field of vision, in the use of the lowest objectives even, is comparatively small in proportion to the object under observation, and the best arrangements for moving the stage in all directions are not sufficient to obviate the difficulties referred to. The application of much lower magnifying powers than are generally in use, would prove fully sufficient to disclose structural

relations, the knowledge of which, may lead at once to a clear conception of the plan of organization.

It has, therefore, been my endeavor to construct an apparatus, which, by the aid of the heliostat and low magnifying glasses, permits of an examination of large areas, as of sections through the whole cord, the medulla, the brain itself, or through other organs, tumors, etc. In accomplishing this the micro-photographic representations promise to become of great value and importance. The common achromatic photographic portrait-lens, or a landscape combination is best adapted for this purpose. In an apparatus properly arranged, the lens represents the microscopic objective, its diameter from one and a half to four or even more inches offers a large field of vision, and at an adequate distance. According to its combination, it projects an image of twenty-five, fifty, or even one hundred diameters which leaves nothing to be desired, either in reference to its distinctness or to its definition. An amplification of twenty-five or fifty diameters is fully sufficient to enable us to trace the course of fibres in any part of the nervous centers, and to make out the situation of the nuclei of the nerves, and even to determine the nature of the ganglion-cells of which they are composed.

The apparatus constructed and employed by me is the following. Upon the front part of a solid wooden stand, twenty inches long, twelve inches broad, and two inches high, which can be raised and leveled by the aid of screws at its bottom, is erected, at a right angle a heavy brass plate, fourteen inches high by twelve inches broad, with a hole in its center of seven inches diameter. Inserted in this plate are two smaller perforated disks, sliding one in front of the other in such a manner that they can be moved up and down, to the right and left by the aid of strong screws. The

front disk supports the objective, which, by this latter arrangement can, with great ease, be set exactly in the axis of the pencil of rays furnished by the heliostat. The back part of the stand bears a simple wooden frame, which fits close to the shutters of the window, enclosing in its center the condenser from which the conical tube has been removed. The upper corners are connected by brass bars, with those of the front piece. The whole stand is darkened by a velvet mantle which can be easily turned back, allowing a glance into the interior part from all sides. Between the face and back, the stand is provided with two more frames, sliding on a metal track, the hind one being used to support a cuvette with a solution of ammoniated sulphate of copper, the other for receiving the specimen. This latter one is so constructed that a perforated metal plate, the stage upon which the specimen rests, can be slipped into its center-piece, which, hanging in a frame with horizontal conical points, allows a rotation in its horizontal axis. This frame rotates in a second one in its vertical axis, and this in a third one, which permits of a movement of the whole to the right and left. All movements are accomplished and regulated by fine screws and serve the purpose of placing the specimen, on the one hand, in the center of the condenser, and on the other, in a plane rectangular to the axis of the pencil of rays. Besides this, the arrangement enables the operator to correct the minutest inequalities of the section itself by placing it, as may be required, in a slightly oblique position, which will occasionally, in focussing large areas on the screen, be found of the very greatest importance. The whole frame then, as has already been stated, slides on a metal track at the base of the stand, so that any desired distance from the objective and from the condenser can be

attained. The face-tube of the objective is, by the aid of a velvet-tube connected with the short tube of a guillotine, which can be opened in front and closed by a falling metal disk which closely fits it. The metal disk is provided with a slit, and a mechanism is added which has an escapement, to raise the disk. According to the size of the slit, and the velocity of the falling disk, both of which can be regulated, the time will vary during which a projection of the image takes place into the darkened room; and the mechanism is of such accuracy that the time can be reduced from one second to one-half, one-quarter, one-eighth and one-tenth of a second, which by the use of low powers, objectives of large diameter and by a great transparency of the specimen, will offer great advantages. The apparatus can likewise be connected with the microscope, but this will only occasionally be necessary, as generally an exposure of more than one second is required. In order to note these divisions of time, a simple pendulum is placed in the darkened room, which strikes seconds. So much for the apparatus itself. The following manipulations and mechanical arrangements are the same as when the microscope is employed.

The point next in importance is the focussing of the image projected upon the screen. Upon it, of course, depends the whole success of the examination, as well as of the illustrative representation. By using the microscope and high powers, it is not generally necessary, and not advisable to move the screen farther off from the instrument, than the hand which uses the fine adjustment screw can reach. We have to select the objective according to the condition of the specimen, but it will always be found of great service, as far as the specimen permits, to operate with the highest power available in the shortest distance, because it is not the size but the definition which makes the instru-

ment valuable. Each objective has its distance of best definition which should not be exceeded, but this can be determined only by practice and patient observation. When using a lens of low power, the focal distance becomes so great as to necessitate the use of some mechanism, which will enable the operator to readily manage the fine adjustment of the microscope, or the tubes of the photographic lenses. The apparatus constructed by me for this purpose is the following. In the frame of the window shutter to the left, about eight feet from the floor, a pulley is fastened, four inches in diameter, which is connected, by a rope running over it, with another pulley at the opposite end of the operating room, a distance of forty feet. This second pulley is movable, sliding forward and backward on an iron shaft, to which it can be fastened by a screw, which allows the rope to be stretched as much as may be necessary. The shaft itself slides in an upward and downward direction, on an iron pillar fastened to the floor and to the ceiling of the room, and can be set at any length by a screw. On the left side of the microscope or the lens-supporter, a heavy iron stand is located, which consists of two iron pillars, about two feet high, to which a cross-piece twelve inches long can be fastened, movable in a vertical direction by a screw. The latter forms the layer of a shaft, eighteen inches long, to which two pulleys are attached by screws, so that the shaft forms the revolving axis of the pulleys. Over the left pulley the rope runs which connects the two above described, while the right one is connected by a strap with another pulley, the axis of which consists of a fine micrometer screw of sixty threads to an inch, attached in a proper manner to the tubes of the lens. By the play of this screw the focus of the lens is regulated. If the microscope is in operation, a second small stand

with two pulleys is required, to transfer the movement to its fine adjustment. It is screwed upon the table supporting the instrument. The rope, as will be understood, by which all the pulleys can be set in motion, crosses the room at a height of about six and a half feet from the floor. It is, therefore, not at all in the way; runs to the left of the track upon which the platform moves with the table and the focussing screen, and can be easily reached and managed with the right hand. These arrangements are practically of great importance, not only for the purpose of facilitating the work, but they are indispensable to success.

The coarse adjustment screws are managed at the microscope stand, the eye for this purpose being aided by an opera glass or by a small telescope. The two screws, however, which regulate the rotation of the stage in its vertical and horizontal axis, as before described, should, as the fine adjustment, be manageable from a distance. The screens on which the image is projected, varying in size from four by four inches, to eighteen by twenty, consist of solid wooden frames, provided with a groove, into which the focussing plate slides and also the cassette holding the sensitized plate. The focussing plate itself, is a plate-glass covered on one side with white on the other with light orange colored paper, which I prefer to the ground glass even with the very finest surface. The frame of the screen is clamped to a solid table or stand which can be raised and leveled by screws. In whatever way arranged, freedom from all vibrations is necessary, as much as possible. At a short distance in front of the screen a blackened card-diaphragm is placed, having an aperture that will define the boundary of the field, to correspond with the size of the plate to be used, and at the same time cut off all extraneous rays. If the speci

mens are too large to permit of a projection on one plate, we practically divide them by drawing lines of spider web over the covering glass, which cross each other at right angles.

By a proper management of the whole apparatus the focussing, even of large areas, can be readily accomplished. If it is intended to photograph the image, the focus has to be corrected, as the focus of the chemical rays differs from that of the rays which act with the greatest intensity upon the retina of the eye. This difference is nearly $=0$ in very strong objectives, but can not be neglected when operating with low powers. With them it increases in an inverse ratio, and with the one fourth inch objective is of considerable magnitude. This could be easily remedied in the combination of the objectives themselves by achromatizing the chemical rays, but unfortunately it is not done by the manufacturers, and as far as I know, W. Wales is the only one who has constructed such combinations. We are, therefore, compelled either to determine the focal correction for each of our objectives by the aid of a graduated fine adjustment, or to operate in monochromatic light. The first must be executed with great accuracy and requires much time and labor, though after it is once done it is easily employed. The latter is accompanied by a loss of light as the rays of the greatest intensity are the most indifferent ones in regard to chemical action. It offers, however, advantages which can not be underestimated, it is easily applied, it permits of an operation in very active light, and protects the specimen from injury by the effect of heat rays, which according to the location of the cuvette are more or less excluded. If the cuvette is placed between the reflecting mirror of the heliostat and the condenser, its effect is most perfect. Standing between the condenser

and its focus it will lose in power the nearer it approaches the latter. The operator can, therefore, regulate its action which is sometimes very important. It will, however, always be found of great service to examine the specimen closely in common light and to be prepared for the employment of both methods when a photographic representation is desired. In operating with monochromatic light I replace the ammoniated solution of sulphate of copper by the following, (sulphate of copper, 20, caustic potassa, 60, rochelle salts, 80, water, 300 parts,) of the same strength as the other solution: the chemical spectrum of this is more defined. It demands, it is true, a longer exposure, as it excludes the ultra-violet rays, but this is amply compensated for by the greater definition and clearness of the negative. In reference to all other photographic manipulations, which are fully described in hand-books, (Beale, "How to work with the Microscope," Vogel "Photography,") I have scarcely anything to add. In micro-photography the iron developer should be entirely replaced by pyrogallie acid with about one-half more glacial acetic acid than is generally recommended. For fixing the image I prefer at first the employment of a weak solution of cyanide of potassium, and after this has been washed off, the negatives are placed for from five to ten minutes in a strong solution of hyposulphite of soda, from the use of which they acquire a beautiful clearness in the half tones.

As in our labors the time of exposure and development are not, as in portraiture, a question of vital importance, it is my opinion that the dry processes offer the greatest advantages. The plates can be prepared in advance, the development performed at leisure, without any danger of over-developing the image. But I must confess that my own experience in this direction, at present, is only of recent date.

RETROSPECT OF GERMAN LITERATURE.

BY THEODORE DEECKE.

PATHOLOGY.

TASKS AND ENDEAVORS OF MODERN PSYCHIATRY. By FLEMMING.

Allgemeine Zeitschrift für Psychiatrie, Bd. 32, Heft. 384.

It is well known with how much ardor psychiatry joined in the labors which recently laid the foundation of so-called exact medicine. After several mutations it returned to its starting point, and although mental disorders occupy a position apart from other disturbances of life, they are still recognized, as in the earliest periods of medical science, as diseases of the bodily organism. The theory, so long governing, that insanity was a psychical anomaly, which should belong [solely to the science of psychology, and be entirely ruled by philosophy, has been exploded. Indeed, since the time of Willis, these disturbances have been esteemed to be a special group of somatic disorders belonging to the nervous system, and with respect to etiology, have been classed with disturbances of life-action in other organs of the body. At one time, it is true, they were considered distinct neuroses; anomalies of the nervous system, not dependent upon the condition of the remainder of the organism. Following out this theory, it was attempted, either by large doses of narcotics, by violent shocks of the body, as by emetics, by cold douches, or by emotions, as fright, surprise, etc., to act upon the disturbed condition of nervous life, in order to re-awaken consciousness from its delirious dreams. Soon, however, these experiments were given up as being not only too severe, but even dangerous. The larger number of practitioners returned to the theory, that insanity was an anomaly of nervous life, directly brought about by disturbances in the spheres of vital and reproductive life, or at least an anomalous condition which was open to therapy by medical interference in these spheres of life. Thus it was unavoidable that they should yield, not only to traditional empiricism, but also to the influences of a governing theory, as that of the humoral pathology, or of inflammation, or of neuro-pathology.

It was at this period in the history of our science, that exact medicine commenced its revolutionary work. As in all the other

branches of medical science, so also in psychiatry, it erected the banner of skepticism, which declared all traditional truth as suspicious, or at least as demanding confirmation by new researches. It required, to be sure, not a little courage to break away from the past, as nothing satisfactory was offered to take the place of it. One was at first confined to a more or less bold criticism of the governing axioms, of the methods of treatment employed, and to the search for knowledge in both directions. Not everything, which was actually attained, was arrived at by any regulated system of research. Some accidentally supported the new ideas, but it was the effect of the reform movement in general. As an example of this we refer to the non-restraint theory, long ago recommended by Pinel, and practically carried out in England, and to the extensive therapeutical use of narcotics and other drugs, acting directly upon the nervous system, which were intended to supersede the over-doses of opium, the only drug heretofore recommended. In illustration we may mention chloroform, hydrate of chloral, morphia internally and hypodermically administered, also the nitrite of amyl, bromide of potassium, and particularly *electricity*. It is not remarkable that the powerful effects of these agents upon the nervous system supported the views of those practitioners who declared that mental disorders were symptoms of diseases of the nervous system: We have already called some attention to the historical fact that this theory was not new, that it had been supported by high authorities, and that it had never gone quite out of sight. It is the more surprising that it was claimed to be of new origin. All this, however, was sufficient to give the labors in psychiatry a somewhat different direction, which indicated that they had also been influenced by the reform ideas of exact medicine.

When it was agreed that a radical as well as critical revision of pathology had become necessary; that even the supposed established facts of it required a new anatomical and physiological foundation; that anatomy and physiology themselves demanded a reconstruction upon new principles,—it was but logical to extend the reform to the pathology of the nervous diseases, and of the so-called mental disorders, for the systematic location of which a place was thought to be found among the diseases of the nervous system in general. Everything was, therefore, dependent upon a close investigation into the diseased conditions of the nervous system. Fortunately, histology and physiology, had to some extent, already leveled the path, and were not discouraged by the many

difficulties which had to be removed. It was a matter of importance that neuro-pathology should keep pace with these sister sciences.

It was naturally to be expected that from these joint labors, anatomy and physiology would derive profit, especially as regards the localization of animal functions in the nervous centers. The anomalies of the peripheric as well as of the central nervous organs, the disturbances of their functions and the anatomical changes concomitant with these became the subject of the most thorough study and investigation. It must be acknowledged that these endeavors, to trace the derangements of nervous activity back to their very places of origin have been so successful that further progress can confidently be expected. But how do matters stand, among all these scientific efforts, in reference to the main work of our science? This has remained the same. Cure of the disease is demanded; at least the amelioration of, or relief from the sorrows which are connected with it. In regard to the last part of the task, nothing attained by efforts during the earlier days of our science has been overlooked, and nothing has been neglected to add improvements in order to meet or anticipate the wants of the insane. The retreats for the insane, the hospitals for mental diseases and diseases of the nervous system have been multiplied, and the greatest care taken to furnish them with all the means calculated to secure to the unfortunate victims of uncontrollable circumstances, a comfortable home and a proper degree of activity. New results were effected; on the one hand, the temporary suppression or moderation of morbid symptoms arising from a violent and morbidly increased activity of nervous life, by the aid of narcotics, as above mentioned; and, on the other hand, the utmost precaution for securing the patients from all physical strain so far as it was directed to the object of mastering those violent nervous attacks. Each of these therapeutical measures should support the other; the first supersedes the second, the latter allows the morbidly excited energy to exhaust itself to its normal degree. Both have been justified by an apparent success. The abolition of physical strain, at least so far as its employment could be safely reduced, if not entirely abandoned, and the administration of narcotics in order to repress the violent nervous symptoms have proved to be of so high value, that no specialist in mental diseases, can do without them. They require, it is true, the greatest precaution, but more than one voice can be heard in favor of elevating them from the order of symptomatic and palliative, into that of curative remedies.

The question arises as to what advance has been made by this new movement in the cure of mental diseases. It would, indeed, be unfair to demand that the young shoots should have already borne ripe and abundant fruit. We should, for the present, be content with the valuable discoveries that have been made regarding the topographical anatomy of the nervous centers, a territory as yet but little explored, and with even the obscure glimpses into the normal and abnormal course of the life functions of those organs. In regard to these, pathological anatomy and physiology have offered some interesting and important facts. One discovery has been added, and has been more closely taken into consideration, which, however, has only confirmed an axiom long ago recognized, viz., that morbid excitations of the peripheric nervous system may create grave disturbances in the functions of the centers, as well in the motory as in the sensory territories.

By all this the hope is strengthened that we will, in time, succeed in discovering the processes which originate such anatomical destructions and alterations of the nervous tissue. With this we might acquire the means of restraining these effects, or even of instituting a retrogression. But until this time the physician will not fold his hands, he will not withdraw his care from his unfortunate patient, for the reason that he is not able to treat him according to invariable laws of science, as yet undiscovered, but only "lege artis," that is according to the rules of an art dependent upon empirical experience. Even the theories of the action of those narcotics which we employ differ extensively, but nobody would for this reason, part with the benefit connected with their cautious administration. The same can be said of other remedies and other methods of treatment, and according to the present state of the science of psychiatry, it will be advisable, at all events, not to confine ourselves to the so-called direct defeat of the psychoses only by aid of narcotics, but without neglecting them, to still adhere, to some extent, to a traditional therapy in spite of its irrational foundation.

ON APHASIA AND ASYMBOLIA,

AND ON A THEORY OF SPEECH. By D. C. SPAMER, OF GIESSEN.

Archiv für Psychiatrie, Bd. VI. Heft. 2.

The name "aphasia," invented by Trousseau, designates a morbid symptom, or in reality a complexity of symptoms. The descriptions of the phenomena, since their first mention by Pliny,

(*Historia Naturalis*, VII, 90,) have been of the most diverse value. The best definition that can at present be given of aphasia, is an inability to express thought by speech, it may be, as is generally the case, that the power of producing words is absent entirely or partially, it may be that wrong words or senseless sounds are formed, although the organs for producing the sound are intact, the muscles are not paralyzed, and no mechanical hindrance is present, no dementia, no stupor. Generally the person has only a few words or sounds at disposal, which are used for everything. In order, however, to draw a distinct clinical picture of the whole, attempts have been made to classify the phenomena. The principal efforts are the following.

Trousseau, (four lectures on aphasia, 1864,) separates aphasia from conditions of stupor and dementia, and from "alalia," by which term he designates the paralysis of muscles of the organs of speech. He would also distinguish it from loss of memory, occasionally the result of acute diseases, in that, in the latter case he asserts that the patients are always able to repeat the words when they are recited.

He distinguishes three kinds of aphasia; 1, loss of speech, but power to express thoughts by gestures and writing; 2, loss of speech and the power of writing, and occasionally also of gestures; 3, besides loss of speech, paralysis of the limbs.

Déchambre, (*Gaz. Méd.* February 26, 1864,) divides the aphasics in 1, persons who can not speak, but express their thoughts by writing; 2, persons who can speak certain words but can not even repeat others; 3, persons who confound words; 4, persons who can speak a few words, but without sense. Déchambre takes but little notice of the expression of thoughts by writing and gestures, but concludes that it is not possible to differentiate the conditions by one word.

Falret, (*Arch. Génér.* Mars. Mai. Juillet, 1864,) distinguishes three categories; 1, inability to speak spontaneously, but not to repeat or write words; 2, inability to pronounce more than a few syllables or words, the power of writing may be preserved or not; 3, the patients have only a few syllables or words at disposal, no power of repeating, or of writing. Falret declares the classification insufficient.

James Russell, (*Brit. Med. Journ.* 1864, July 23, August 20, 27,) presents also three, but very different categories; 1, aphasia by loss of recollection of words; 2, paralysis of the mechanical organs of speech by interruption of the conducting tracts of will and intellect; 3, aphasia by a disturbed co-ordination of the move-

ments of muscles necessary for speech. In order to distinguish the loss of recollection of words from the disturbed condition of the conducting tracts of will and intellect, he remarks that in the latter case the patients make remarkable efforts to express themselves.

Jaccoud, (*Gaz. Hebdomadaire*, 1864, Nos. 30, 32,) distinguishes 5 varieties; 1, aphasia, by paralysis of the muscles of the organs of speech; 2, disturbance of the organ of co-ordination, (the use of wrong expressions;) 3, interruption of the conducting tracts of will; 4, loss of recollection of words; 5, by habit. In 1, 2 and 3, the patients can read and write, memory and intelligence are undisturbed. In 4, they can read but not speak or write except when the words, which are to be pronounced or written, are recited. By gestures they are able to make themselves understood. In 5 the patients do not speak, because of a defect of the intellectual faculties, or they speak words without sense. No. 1 alalia, and No. 5 dementia, are removed from the modern conception of aphasia.

Benedict (*Wiener Med. Presse* 1865,) distinguishes two groups of aphasia; 1, those which depend upon a defect of the representative faculty of speech; and 2, those which arise from disturbances of the organs of co-ordination for articulate speech.

Ogle (*St. Georges Hosp. Rep.* II p. 83 ff.) presents two forms; 1, loss of recollection of words; "amnestic aphasia," where the patients are unable to name anything, but generally repeat recited words; 2, loss of recollection of words or not, but inability to express words; "ataxic aphasia."

In the same manner Ogle speaks of amnestic and ataxic agraphia; this same division is accepted by Popham.

Bateman (*Journ. of Ment. Sc.* Jan., Apr., Oct., 1869,) likewise accepts the principles of this classification, but declares it artificial and prefers to describe separately the different varieties of aphasia.

Bastian (*Brit and For. Med. Chir. Review*, Jan., Apr., 1869,) proposes the following classification: 1, aphasia, faculty to think, but not to speak and to write; 2, aphasia, faculty to think and write, but not to speak; 3, agraphia, faculty to think and speak, but not to write.

Finkelnburg, 1870, discards all the foregoing classifications, and prefers to describe the defects separately.

Hammond (*N. Y. Med. Rec.* March, 1871,) again returns to the two categories; 1, amnesic, and 2, ataxic aphasia.

Biermer (*Corresp. Bl. für Schweizer Aerzte* No. 8, 1871,) accepts two categories; 1, inability to express the ideas by speech; 2,

ideas and words are present but they do not cover each other, the conducting tracts between them being interrupted.

Broadbent 1872, distinguishes; A, amnesia or amnemonic aphasia; B, ataxic aphasia. Both are again divided into two classes; a, paralytic; b, inco-ordinate. In paralytic amnesia he says, the patients forget the word, but they are able to repeat it; in inco-ordinate amnesia the patient disposes of many words but they are used in a wrong way without noticing it. In paralytic aphasia the patient loses more or less the faculty to pronounce words. In inco-ordinate aphasia he employs wrong words but notices his mistake and attempts to correct it.

Samt (Arch. für Psychiatrie, III, 751,) again concludes that aphasia is to be considered a complexity of symptoms, which in each single case should be closely analyzed.

The defects of all these classifications are evident. The simple statement that they are so discordant in their results denotes their insufficiency. The author thinks it, therefore, justifiable to throw the old picture aside and to delineate a new one upon a broader basis, the more, as the phenomenon is one of the most interesting which clinical medicine, in conjunction with pathological anatomy of the nervous centers has offered.

With the phenomenon, of which in general a definition has been given in the foregoing, other disturbances are almost invariably connected. The name given to this condition is of importance, only in so far as it designates the most striking symptom, the loss of the faculty of articulate speech. There are other defects, of which we will speak, and which are physiologically of equal importance.

The most frequent of all combinations is that of aphasia, with loss of the power of expressing thoughts by writing. This may manifest itself in an entire inability to write or in the using of wrong words, or of senseless combinations of letters, or in making lines or dashes only. The only manner such persons can make themselves understood is by gestures. This power seems to remain, at least, in the majority of cases. Hitherto, however, little attention has been paid to it. It is of special interest in those cases where the words employed are accompanied by gestures in order to facilitate their being understood. So in a remarkable case reported by Broca, where the patient for all numerals employed only the word "tois," (instead of trois,) but by showing the right number of fingers corrected the defects of his expression. But the employment of symbols, as words, letters and gestures to express ideas and make them perceptible to the eye or ear, as well

as the understanding of them may be disturbed. It is a curious fact that in so many cases of aphasia where the power of employing the sound-symbols is entirely absent, a full and correct perception of them remains.

The faculty of comprehending printed or written symbols is frequently greatly impaired or even destroyed. It is remarkable that occasionally only the conception of the numerical symbols remains intact or is solely destroyed. In other cases it has been observed that a correct comprehension existed of single letters or ciphers, but not of their combinations into words, etc.; the reverse, however, is more frequent, that an understanding of the whole word exists, but not of its components.

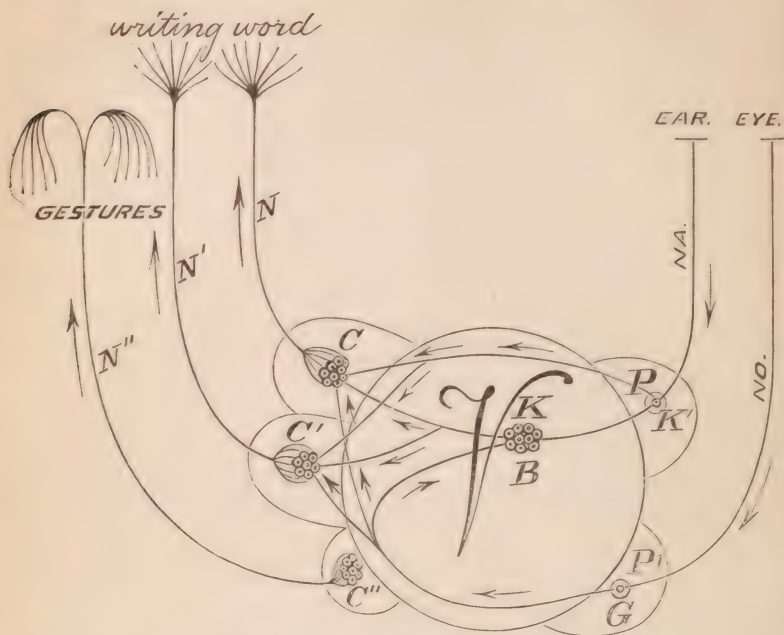
Occasionally when the faculty of speech is preserved, written and printed matter will be read, but entirely wrong, and without any comprehension of its meaning. The correct perception of objects is seldom disturbed, yet even this may exist. With this correct perception, there may be a defect in the comprehension of their symbolical significance, or of certain movements and actions. Finkelburg reports a case where the patient had entirely lost the understanding of the Catholic symbols, with which he used to be very familiar.

As it is now our task to explain these phenomena, and to search for their inner connection, I think it advisable, in the first place, to avoid the use of certain ambiguous words which may be falsely interpreted. Such a phrase, for example, is the "sense of speech." We frequently hear and read of locating the "sense of speech" in the third left anterior convolution.

What does this mean. It is my opinion that the word should only be employed as a collective noun for all occurrences connected with speech, for the purpose of analyzing these, it is useless. Another such word is "the center of speech." What an image of natural relations can be represented by a sentence; "the center of speech is located in, etc.?" It is just as vague as if any one would speak of the center of a steam engine. In technical analysis of an engine, the employment of such terms may be permitted, unconnected with other terms, however, of equal significance they may lead to an entire misapprehension.

We are not able, it is true, to separate the parts of our machine, but by observation of their normal functions and from the effect of local disturbances we can obtain sufficient knowledge of the mechanism to construct rough outlines of it. Such a diagram of the mechanism of speech, delineated by the author, is illustrated

by the following figure, in which the tracts, the connections and their centers as far as they are supposed to exist in nature are represented.



The circle in the center of the figure V, delineates the tract of the representations; *na*, *no*, *nervus acusticus* and *nervus opticus*, by which the excitations of the nerves are conducted into the brain. *P*, *P'*, the places where the impressions of ear, and eye are perceived. Here we have only simple sensual perceptions. Conducted to *B* they have reached the point where ideas are developed. From this they are sent to the centers of co-ordination of speech, writing and gestures, *C*, *C'*, *C''*: *N*, *N'*, *N''*, represent the motory nerves which divide in branches terminating in the different muscles of the organs which participate in the action.

In V, inside the tract of representations, which, for good reason, we locate in the grey cortex of the cerebral convolutions, ideas, collective conceptions are developed, deduced from excitations of the peripheric sensory expansions which have been transmitted to the central organs. The idea is represented in the diagram by a group of cells, *B*, which must be imagined as forming a unity, because it is the essential nature of an idea that all its components must be excitable, simultaneously from wherever the impulse may originate. In the diagram, from the right side, the excitations o

the sensory nerves are conducted to the tract of representations. To the left side they are sent out into the motory system at the periphery. Of the centripetal tracts only two are delineated, those of the optic and acoustic nerve; of the centrifugal, three tracts. The latter represent the nerves, to the muscles by the play of which ideas can be made sensible. Thus each idea, by agreement, can be made known in a certain character or symbol. Of these the word or the sound-symbol, and the written symbol are the most important, of much less practical value are the gestures. The connection of B with the motor tracts of the latter are, therefore, not indicated in the figure.

In order to pronounce or write a word the play of quite a series of muscles is required, which can only be set in action according to a certain plan, developed in the course of life, the result of training and exercise. This is represented in the diagram by the centers of co-ordination, and we must suppose that each idea is in intimate connection with a certain group of co-ordinate cells, the center of innervation for pronouncing or writing a certain word.

In the figure this connection is represented by the line B to C, the center for co-ordination of speech, and B to C', the center of co-ordination for writing. From these centers the excitations are transmitted directly to the motor fibres which terminate in the appendant muscles of the organism.

Besides this tract through the centers of co-ordination there must exist undoubtedly, another connection between the tract of representations (or the tract of will,) and the same muscles. By this way the common and not symbolic movements of the muscles are liberated. The difference between both conductions must be of a qualitative nature, and the tracts must be located in the nervous centers at a certain distance from each other. This is shown by the fact that in cases of aphasia, arising from limited destructions or morbid affections of the brain, other voluntary movements of the same muscles are not impaired. A complication of aphasia with paralysis or sub-paralysis of the pharynx, the tongue, the lips, etc., are rare and occur only concomitantly with the destruction of large areas of the brain. More frequently aphasia is complicated with hemiplegia. In these cases the not paralyzed hand has only lost its power of writing, with the exception of those rare cases in which at the same time no agraphia exists. In aphasia without hemiplegia the differences between the symbolic and the non-symbolic movements of organs are distinctly demonstrable. The patients are able to perform the finest labors with their hands, but they are unable to write, (case of Prof.

Wernher, of Giessen.) This second tract is not delineated in the diagram in order to complicate it as little as possible.

The centers of co-ordination for speech and writing are developed by training and exercise, as in regard to the latter everybody will recollect. Writing is learned by imitating the visible, speech by imitating the audible character or symbol. With the writing of the symbols we learn their meaning, therefore, in the diagram a double connection with B is indicated. Speaking, however, is learned before we are able to comprehend the sense of the symbol. It follows from this fact that the tract from P, (place of perception of the sound symbol K',) to C, (center of co-ordination for the pronunciation of the word,) does not with necessity pass B, (the idea of the word,) but that there exists another direct connection, (P C in the diagram above P B C.) Regarding the localization of these two tracts in the brain a few words may be permitted us.

According to Meynert, in the medulla oblongata and in the pons, large multipolar ganglion cells, belonging to the nuclei of the facialis, the pneumogastric, the glosso-pharyngeus and the hypoglossus are in connection with the widely extended nucleus of the acusticus. If the medulla oblongata and the pons remain intact this suffices to liberate movements of the pharynx, the lips, the tongue, etc., but not to develop articulate speech, (Wernicke reports two cases in which children cried after perleration, only the medulla oblongata having remained intact.) This has been demonstrated by numerous cases of aphasia in which only the third (left) anterior convolution was injured. A classical case is reported by Theod. Simon. A man falls from a horse; he rises and bestrides the horse again; a physician, present by chance, states there was perfect aphasia, and observes a small depression on the left side of the skull; no other brain symptom; meningitis develops; the man dies, and the post mortem examination reveals, besides the secondary meningitis, the presence of a small splinter of bone in the third left anterior convolution.

That the tracts of speech pass through this third convolution, can not at present be doubted. But it is plausible that its centrifugal course, perhaps its centripetal also, crosses the medulla.

Through the third convolution passes B C, as well as the direct course, K C, because both tracts are generally interrupted by lesions of this convolution, but a separate interruption may occasionally occur. Eisenman, 1864, has collected twenty-one such cases. The patients could not express themselves by articulate speech or by writing, but they possessed the faculty of repeating

words. Here the interruption must have been located between P, B, C, while K C, the direct line remained intact.

In the same manner as from P, conducts a tract from P' to C, without passing B. We can read and copy printed and written matter without conceiving the sense of it, the direct tracts in the diagram are easily traced.

It occurs that the tract from P, or P' to B, is interrupted, while the connection with C or C' or with both is intact. Broadbent reports such a case; a very intelligent gentleman lost entirely after an affection of the brain, the faculty to read printed or written matter but he still wrote correctly and with ease, spontaneously as well as from dictation. His conversation was intelligent, his stock of words large. In the history of a case of Van den Abeele, we find: "the patient perceived the letters; he was able to copy them, but he could not combine and translate them into words." Wernicke reports of a patient: "The faculty to write is only so far intact that he copies correctly. Spontaneously or from dictation he is unable even to write his name or a single letter. In these cases the direct tract from P to C has remained intact, while the line from the point of junction at the left side of the circle was interrupted. In the first case, (Broadbent,) the patient was able to copy from dictation, without comprehending the sense of it. A similar case has been reported by Bernhardt, (Berlin.) It follows from these facts, that also from P to C' a direct line must exist which does not pass through B, (see diagram.) It agrees with this that words can be copied from dictation without comprehending them, Wernicke says of a patient: "The '1874,' which he copied from dictation he could not read." In the first case the line from the junction to B was not used, in the second it was destroyed.

Following the lines in the diagram it will be remarked that the tract from P' to B takes an indirect course. This refers only to the relation between written symbols and their ideas. The tract which connects these must take a course different from the one between the simple perception by sight, and B. It must somewhere pass very close to the centers of co-ordination for speech and writing or to the tracts from B to these. Because in the majority of cases of aphasia it is likewise interrupted, and the patients do not understand written or printed matter, while other objects are correctly conceived.

The connection between P and B, on the contrary, seems to be a direct one, at least located at some distance from C and C', and from B C and B C'. This is supported by the rare occurrence of

the inability to comprehend words in cases of aphasia. Wernicke, however, reports two cases.

It must be remarked here that all these phenomena can manifest themselves as a total destruction of the faculty as well as in an embarrassment of the same. They indicate anatomically and physiologically either an entire dissolution, or a morbid affection of the tracts or of the centers of co-ordination. In the latter case it must be supposed, that under certain circumstances the centripetal excitations may become connected with wrong centers of conception and the centrifugal with wrong muscles. Both have frequently been observed, and sometimes the patients become themselves conscious of such complications. In regard to symbolic conceptions, the author proposes to designate these conditions by the word "par-alexia," in regard to symbolic expressions, by the words "par-aphasia" and "par-agraphia."

Taking now a review of all the phenomena described in the foregoing, it is apparent that they very well permit of being considered from a common point of view.

The intercourse between men and the want of reciprocal understanding has developed the employment of symbolic characters in order to render possible, and to facilitate the expressions of ideas in a perceptible form. The principal symbols are those of speech and writing. Next to these the numerical symbols, and the symbols of mathematics, of music, and recently of chemistry, etc. There are, besides these, the symbols used in religious worship, in public and social life, etc. Of these, frequently a single one expresses a series of ideas, as for instance the folding of the hands, the holy cross. The last one comprehends in itself the whole doctrine of christianity.

It is this symbolic conception as well as the symbolic expression, the disturbances of which are comprised by the collective noun, "aphasia." In reality, this name, however, embraces only one class of symptoms. Fincklenburg, therefore, in order to prevent a misapprehension, and to facilitate a scientific classification of the phenomena, has first proposed to replace it by the name "asymbolia." Our author adopts this and bases upon it the following new classification provided with practical hints.

A.—SYMBOLIC EXPRESSION.

I. Disturbances of the faculty of speech, aphasia or par-aphasia? how many words and sounds are at disposal? which words are wanting? the noun? can the person repeat or read? does he read or repeat wrong?

II. Disturbances of the faculty of writing. Can the person not write at all? how many words? are wrong words written or words

wrongly written? or only combinations of letters? or no letters, only senseless lines? can he copy? can he copy from dictation?

III. Disturbances of gestures. Are they wanting? wrong or incomprehensible?

B.—SYMBOLIC CONCEPTION.

I. Conception of the sound-symbols, the words. Does the person comprehend all words or only a few? does he connect the right ideas with sounds, as the sound of a bell, the tick-tack of a clock, the singing of a bird, etc.?

II. Conception of the optic symbols.

a. Letters. Is there a full, a defect or no conception at all? are the letters recognized?

b. Conception of numerals and their combination?

c. Of musical notes.

d. Of other symbols, used in mathematics, chemistry, etc.

e. Of other symbols, especially gestures, social manners, business formulæ, religious symbols, etc.

Besides this of course we should not neglect to inquire if the conception of other things or objects is impaired; also the state of intellect must be examined. The author expresses the desire that this or a similar classification based upon the same principle, should be adopted. In another chapter of the article the question is discussed whether man thinks commonly or exclusively in words. The answer follows from the foregoing, that this can not be so, but we must refuse here to enter into further details.

The review of the pathological anatomy of "asymbolia" given by the author, offers at present no new points of importance. In an appendix we find a case mentioned, reported quite recently by Westphal (Berlin,) which is of too much interest to be withheld. An intelligent patient showed, besides hemiplegia, partial aphasia. He spoke fluently, but here and there a word was not recollected and understood. He copied from dictation, but manifested an entire alexia: he could not read what he had written. The report continues: "it is true, after some time he accomplished an understanding, but only, as he himself declared, by the aid of a trick, that is when he slowly followed the outlines of the letters with his finger." In this case the author finds a new evidence of the correctness of his diagram. The course from G, (in P') to B, is here interrupted (probably destroyed,) but, the connection between B, and C', is intact and from the voluntarily excited C', the impulse is transmitted to B, (backwards,) the idea awakened and the excitation can be conducted to C, that, is the word can be pronounced.

PROVISION FOR THE INSANE IN THE UNITED STATES.

Asylums are Classified according to their form of Organization. The data have been obtained from the last Annual Reports, or from letters from the Superintendents of the Institutions. This list has been prepared with care, and is as accurate as can be made.

STATE INSTITUTIONS.

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	NAME OF SUPERINTENDENT.	No. P'ts.
1	Hospital for the Insane,	Augusta, Maine,	Henry M. Harlow, M. D.	403
2	Asylum for the Insane,	Concord, N. H.,	J. P. Bancroft, M. D.	281
3	Asylum for the Insane,	Brattleboro, Vt.,	Joseph Draper, M. D.	471
4	Lunatic Hospital,	Worcester, Mass.	B. D. Eastman, M. D.	478
5	Lunatic Hospital,	Taunton, Mass.,	W. W. Godding, M. D.	602
6	Lunatic Hospital,	Northampton, Mass.	Pliny Earle, M. D.	476
7	Insane Department State Almshouse.	Tewksbury, Mass.,	James Whitaker, M. D.	319
8	State Asylum for Incurable Insane,	Natic, R. I.,	George T. Perry, M. D.	173
9	General Hospital for Insane,	Middletown, Conn.,	Abram M. Shew, M. D.	450
10	State Emigrant Insane Asylum,	Ward's Island, N. Y.,	Edward C. Mann, M. D.	148
*11	Hudson River State Hospital,	Poughkeepsie, N. Y.,	J. M. Cleveland, M. D.	260
12	New York State Lunatic Asylum,	Utica, N. Y.,	John P. Gray, M. D.	635
13	State Lun. Asylum for Insane Criminals,	Auburn, N. Y.,	Carlos F. McDonald, M. D.	106
14	Willard Asylum for Insane,	Willard, N. Y.,	John B. Chapin, M. D.	1175
15	State Homœopathic Asylum for Insane,	Middletown, N. Y.,	Henry R. Stiles, M. D.	80
16	State Lunatic Asylum,	Trenton, N. J.,	John W. Ward, M. D.	714
17	Pennsylvania State Lunatic Asylum,	Harrisburg, Pa.,	John Curwen, M. D.	416

18	Western Penn. Hospital for Insane,	Dixmont, Pa.,	Joseph A. Reed, M. D.	491
19	State Hospital for the Insane,	Danville, Pa.,	S. S. Schultz, M. D.	260
20	Maryland Hospital,	Catonville, Md.,	J. S. Conrad, M. D.	155
21	Government Hospital for the Insane,	Washington, D. C.,	Charles H. Nichols, M. D.	718
22	Eastern Lunatic Asylum,	Williamsburgh, Va.,	W. Black, M. D.	294
23	Western Lunatic Asylum,	Staunton, Va.,	R. F. Baldwin, M. D.	356
24	Central Lunatic Hospital,	Richmond, Va.,	Randolph Barksdale, M. D.	243
25	Hospital for the Insane,	Weston, W. Va.,	T. B. Camden, M. D.	350
26	Insane Asylum for North Carolina,	Raleigh, N. C.,	Eugene Grissom, M. D.	250
27	Asylum for the Insane,	Columbia, S. C.,	J. F. Ensor, M. D.	300
28	Lunatic Asylum,	Milledgeville, Ga.,	Thomas F. Green, M. D.	516
29	Hospital for the Insane,	Tuskaloosa, Ala.,	P. Bryce, M. D.	352
30	Lunatic Asylum,	Jackson, Miss.,	Wm. M. Compton, M. D.	325
31	Lunatic Asylum,	Jackson, La.,	J. Welch Jones, M. D.	167
32	Hospital for the Insane,	Austin, Tex.,	D. R. Wallace, M. D.	152
33	Hospital for the Insane,	Nashville, Tenn.,	J. H. Callender, M. D.	375
34	First Kentucky Lunatic Asylum,	Lexington, Ky.,	Robert C. Chenault, M. D.	526
35	Second Kentucky Lunatic Asylum,	Hopkinsville, Ky.,	James Rodman, M. D.	350
36	Central Kentucky Lunatic Asylum,	Anchorage, Ky.,	C. C. Forbes, M. D.	270
37	Cleveland Hospital for Insane,	Newburgh, Ohio,	J. Strong, M. D.	569
38	Western Hospital for Insane,	Dayton, Ohio,	L. R. Landfear, M. D.	600
39	South Eastern Hospital for Insane,	Athens, Ohio,	Richard Gundry, M. D.	605
40	North Western Hospital for Insane,	Toledo, Ohio,	B. A. Wright, M. D.	111
41	Asylum for the Insane,	Kalamazoo, Mich.,	E. H. Van Deusen, M. D.	550
42	Hospital for the Insane,	Indianapolis, Ind.,	Orpheus Everts, M. D.	500
43	Hospital for the Insane,	Jacksonville, Ill.,	H. F. Carrier, M. D.	450
44	Hospital for the Insane,	Anna, Ill.,	A. T. Barnes, M. D.	200
45	Hospital for the Insane,	Elgin, Ill.,	Edwin A. Kilbourne, M. D.	200
46	Hospital for the Insane,	Mendota, Wis.,	D. J. Boughton, M. D.	375

STATE INSTITUTIONS—(CONTINUED.)

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	NAME OF SUPERINTENDENT.	No. P'ts.
47	Northern Hospital for the Insane,	Oshkosh, Wis.,	Walter Kempster, M. D. *	550
48	Hospital for the Insane,	Mt. Pleasant, Iowa,	Mark Ramey, M. D.	551
49	Hospital for the Insane,	Independence, Iowa,	Albert Reynolds, M. D.	251
50	Hospital for the Insane,	St. Peter, Minn.,	C. K. Bartlett, M. D.	517
51	Lunatic Asylum No. 1,	Fulton, Mo.,	T. R. H. Smith, M. D.	350
52	Lunatic Asylum No. 2,	St. Joseph, Mo.,	George C. Catlett, M. D.	250
*53	Lunatic Asylum,	Ossawatimie, Kan.,	A. H. Knapp, M. D.	111
54	Hospital for the Insane,	Lincoln, Neb.,	F. G. Fuller, M. D.	80
55	Asylum for the Insane,	Stockton, Cal.,	G. A. Shurtleff, M. D.	1302
*56	Asylum for the Insane,	Napa, Cal.,	E. T. Wilkins, M. D.	189
57	Lunatic Asylum,	Portland, Oregon,	J. C. Hawthorne, M. D.	200
58	Lunatic Asylum,	Steilacoom, Wash. Ter.,		100

* When completed, capacity will be of Hudson River State Hospital, 500
 State Homœopathic Asylum, 300
 Lunatic Asylum, Kansas, 250
 Asylum for Insane, Napa, Cal., 800

Increase of State capacity by completion of these Institutions, 1270

† For Colored Insane.

ORGANIZED CITY OR COUNTY INSTITUTIONS HAVING A RESIDENT MEDICAL SUPERINTENDENT.

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	NAME OF SUPERINTENDENT.	No. P'ts.
1	Lunatic Hospital,	Boston, Mass.,	Clement A. Walker, M. D.	200
2	Kings County Lunatic Asylum,	Flatbush, N. Y.,	James A. Blanchard, M. D.	778
3	City Asylum for the Insane,	Wards Island, N. Y.,	A. E. Macdonald, M. D.	700
4	City Lunatic Asylum,	Blackwells Island, N. Y.,	R. L. Parsons, M. D.	1276
5	Monroe County Asylum,	Rochester, N. Y.,	M. L. Lord, M. D.	158
6	Essex County Lunatic Asylum,	Newark, N. J.,	J. A. Cross, M. D.	150
7	Department for Insane, Almshouse,	Philadelphia, Pa.,	D. D. Richardson, M. D.	1028
8	Longview Asylum,	Carthage, Ohio,	W. H. Bunker, M. D.	600
9	Cook County Asylum,	Chicago, Ills.,	George Cunningham.	300
10	St. Louis County Asylum,	St. Louis, Mo.,	N. de V. Howard, M. D.	320

INCORPORATED, CHARITABLE INSTITUTIONS.

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	NAME OF SUPERINTENDENT.	No. P'ts.
1	McLean Asylum for the Insane,	Somerville, Mass.,	George F. Jelly, M. D.	148
2	Butler Hospital,	Providence, R. I.,	John W. Sawyer, M. D.	143
3	Retreat for the Insane,	Hartford, Conn.,	Henry P. Stearns, M. D.	120
4	Bloomingtondale Asylum,	Manhattanville, N. Y.,	D. Tilden Brown, M. D.	189
5	Pennsylvania Hospital for the Insane,	Philadelphia, Pa.,	Thomas S. Kirkbride, M. D.	419
6	Friends Asylum for the Insane,	Frankford, Phila., Pa.,	J. H. Worthington, M. D.	80
7	*Providence Asylum,	Buffalo, N. Y.,	William Ring, M. D.	75
8	*Mt. Hope Retreat,	Baltimore, Md.,	William H. Stokes, M. D.	297
9	*St. Vincent's Asylum,	St. Louis, Mo.,	J. K. Bauduy, M. D.	137

*Under the charge of Religious Orders.

PRIVATE INSTITUTIONS.

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	NAME OF SUPERINTENDENT.	No. P'ts.
1	Shady Lawn,	Northampton, Mass.,	A. W. Thompson, M. D.	12
2	Spring Hill Institution,	Litchfield, Conn.,	Henry W. Buell, M. D.	20
3	Sanford Hall,	Flushing, N. Y.,	J. W. Barstow, M. D.	31
4	Private Asylum,	Pleasantville, N. Y.,	Geo. C. S. Choate, M. D.	6
5	Brigham Hall,	Canandaigua, N. Y.,	Harvey Jewett, M. D.	70
6	Burn Brae,	Kelleyville, Pa.,	R. A. Given, M. D.	30
7	Cincinnati Sanitarium,	College Hill, Ohio,	W. S. Chipley, M. D.	50
8	Bellevue Place,	Batavia, Ills.,	R. J. Patterson, M. D.	20
9	Oak Lawn,	Jacksonville, Ills.,	A. McFarland, M. D.	12

ASYLUMS IN PROCESS OF CONSTRUCTION, WITH PROPOSED CAPACITY.

No.	OFFICIAL DESIGNATION OF INSTITUTION.	LOCATION.	No. P'ts.
1	Lunatic Hospital,	Danvers, Mass.,	600
2	Buffalo State Asylum,	Buffalo, N. Y.,	500
3	New Jersey State Lunatic Asylum,	Morristown, N. J.,	800
4	State Hospital for the Insane,	Warren, Pa.,	500
5	Asylum for the Insane,	Morganton, N. C.,	400
6	Central Ohio Asylum,	Columbus, Ohio,	600
7	Asylum for the Insane,	Pontiac, Mich.,	600
8	State Lunatic Asylum,	Topeka, Kan.,	400

Omitted from the table of Incorporated, Charitable Institutions,

Marshall Infirmary, Troy, N. Y., Dr. J. D. Lomax, 97

This changes the totals as follows: total number in Incorporated Charitable Institutions, 1,715. Total in Asylums, 29,655. Total present and prospective capacity, 35,325. This shows that there still remain, for whom no hospital accommodations have even been contemplated, 9,607.

Total Number Patients in State Institutions,	22179
Total Number Patients in Organized City or County Institutions having a resident Medical Superintendent,	5510
Total Number Patients in Incorporated, Charitable Institutions,	1618
Total Number Patients in Private Institutions,	251
Total in Asylums,	29558
Total Capacity of Asylums in Process of Construction,	4400
Total Additional Capacity of State Asylums already opened, when Completed,	1270
Total Present and Prospective Capacity,	35228

The number of insane in the United States, estimated upon the census of 1870, which is the most reliable source of information, is, 44932

This shows that there still remain, for whom no hospital accommodations have even been contemplated, 9704

BIBLIOGRAPHICAL.

REVIEW OF REPORTS OF AMERICAN ASYLUMS FOR THE YEAR 1875.

NEW HAMPSHIRE. *Report of the New Hampshire Asylum for the Insane*: 1875. Dr. J. P. BROWN.

There were in the Asylum, at date of last report, 261 patients. Admitted since, 140. Total, 401. Discharged recovered, 35. Improved, 34. Unimproved, 27. Died, 26. Total, 122. Remaining under treatment, 279.

Dr. Bancroft the Superintendent of the Asylum being absent in Europe, Dr. J. P. Brown the first assistant physician and acting Superintendent, makes the Report.

The Institution has been conducted with the usual success, and though the number of recoveries is somewhat smaller, this is accounted for by the character of the admissions. The new ward for the disturbed class of men has been occupied for more than a year and has fully demonstrated its usefulness. The infirmary, arranged to allow friends to visit and remain with the sick, has proved its adaptation for the purpose for which it was built, and has been used on several occasions. It has called forth the gratitude of those who have thus been able to minister to the wants of their unfortunate relatives.

Some improvements have been made in the ventilation of the old cottage: some of the wards have been painted and the ordinary repairs made. A new boiler to replace one which has been in use for nineteen years is demanded, also a new and more commodious boiler house.

MASSACHUSETTS.. *Fifty-Eighth Annual Report of the McLean Asylum for the Insane*: 1875. DR. GEORGE F. JELLY.

There were in the Asylum, at date of last report, 148 patients. Admitted since, 85. Total, 233. Discharged recovered, 13. Improved, 41. Unimproved, 10. Died, 16. Total, 83. Remaining under treatment, 150.

CONNECTICUT. *Tenth Annual Report of the Connecticut Hospital for the Insane*: 1875. DR. A. MARVIN SHEW.

There were in the Hospital, at date of last report, 450 patients. Admitted during the year, 136. Total, 616. Discharged recovered, 45. Improved, 46. Unimproved, 32. Died, 33. Remaining under treatment, 460.

Dr. Shew details the success attending the effort to improve the "habits" of the patients under his charge in the Asylum.

A repulsive feature of some forms of mental derangement is the change of *personal habits* of individuals. Those who are naturally quiet, modest and taciturn become boisterous and rude; others who are exquisitely neat and cleanly, manifest untidy propensities that would astonish their intimate friends. It has been our aim during the past year to study the so-called "filthy habit" of the insane for the purpose of ascertaining how much of it could be corrected by watchful care, personal attention to habits and mild discipline.

The subjects of this habit may be divided into three classes: Those who from paralysis or other physical causes are unable to control their secretions; those who from absorbing delusions become unconsciously filthy; and lastly, those who are partially demented, habitually lazy, or morally insensible, preferring to remain untidy rather than make any exertion. In a Hospital population made up largely of the chronic insane, there is an average of nine per cent who are inclined to be habitually filthy.

The period of time covered by the statistics is ten months of the past year. The table contains the results

in case of the men patients only. In June 1875, 8.88 per cent. were characterized as having filthy habits, while in March, 1876, the number was reduced to 3.04 per cent. The results, as might have been expected, were not so favorable among the women patients, and the figures are not presented.

Restraint has been used to a limited extent, and restricted to such cases as failed to be controlled by other and less objectionable methods. In November last only two patients in the men's side were restrained, one by a muff to prevent the removal of bandages, and one with a camisole to prevent the destruction of clothing. During the past three months no form of mechanical restraint has been employed with the male patients. In cases of acute mania marked by feebleness, seclusion in a dark room has been resorted to, and it was thought with benefit to the patients. Investigation regarding the employment of patients shows that four years ago, 24 per cent. of the population of the Hospital were regularly employed, and during the month of March last, 39 per cent. of the whole number of patients were at various kinds of work several hours daily.

The pressure from applications for admission still continues, and patients can only be received in the order of their requests. Sometimes a quiet chronic patient is removed to make room for a recent case, or one which can not well be cared for in the county house, or in a private family.

I do not believe the policy economic or humane in the end; sooner or later these cases return to us in a worse condition, and while at home often prove a burden to their families, who can ill afford to give up regular employment to watch and protect these unfortunates. * * * * *

There are now sixty-five applicants for admission more than we can accommodate. Another Hospital is needed as much to-day as this one was ten years ago.

The history of the Hospital from its inception to the present time we present as the first article in the current number of the JOURNAL.

CONNECTICUT. *Fifty-Second Annual Report of the Retreat for the Insane*: 1875. DR. HENRY P. STEARNS.

There were in the Retreat, at date of last report, 130 patients. Admitted since, 103. Total, 233. Discharged recovered, 42. Improved, 19. Unimproved, 23. Died, 9. Total, 93. Remaining under treatment, 140.

In the last report of the Retreat, the suggestion was made that insanity was becoming more incurable. As tending to strengthen this view, in the present report, Dr. Stearns presents statistics of the Institution from the date of its organization, during some forty years, divided into periods corresponding mainly with the dates of service of the various superintendents.

During the first ten years, the percentage of recoveries in recent cases averaged 90.1, on all admissions 55.5. During the following six years the percentage of recoveries in recent cases was 79, on all admissions, 56.9. After an interval of eight years, for which no statistics are presented, the succeeding five years give the record of recoveries in recent cases of 74.6, on all admissions, 48.1. The next thirteen years show a percentage of recoveries in recent cases of 80, and on all admissions, 45.7. The last six years give a percentage of recoveries in recent cases of 62.3, and on all admissions, 37.8.

These statements show that the recoveries of recent cases, during the first ten years, were ten per cent. larger than at any subsequent time, and that the per cent. of recoveries on all admissions has been growing less since 1840, falling from 56.9 to 45.7, and since the change in the character of admissions, considerably lower still, till during the last period of six years it has reached 37.8.

The opinion is expressed that this difference in results attained is not owing to inferior treatment, as this is believed to be superior, nor on the other hand to the fact of admitting a larger number of chronic cases, as this class is thought to have been as numerous in the earlier days as at the present time. The statistics, to the doctor's mind, serve to confirm the view that the disease itself is of a more incurable nature. The percentage of deaths is unusually low, being only 3.8. A full history is given of one case of apoplexy, and is interesting in the detail of treatment and its results.

The Elizabeth Chapel, built by the benevolent gift of Dr. G. W. Russell, was completed and dedicated since the last report was made. Various improvements in furnishing and decorating the building, in providing a full supply of water, and in the appearance of the lawn are mentioned. The success of the Institution, both financially and in the amount of good accomplished is marked.

NEW YORK. *Report of the Bloomingdale Asylum:* 1875. Dr. D. TILDEN BROWN.

There were in the Asylum, at date of last report, 175 patients. Admitted since, 112. Total, 287. Discharged recovered, 34. Improved, 31. Unimproved, 8. Died, 23. Total, 96. Remaining under treatment, 191.

NEW YORK. *Report of the Kings County Lunatic Asylum:* 1875. Dr. JAMES H. BLANCHARD.

There were in the Asylum, at date of last report, 751 patients. Admitted since, 318. Total, 1,069. Discharged recovered, 109. Improved, 79. Unimproved, 34. Died, 84. Total, 303. Remaining under treatment, 766.

The overcrowding of the building, and the necessity of increased accommodations are the subjects noticed

in the report. The suggestion is made of erecting another building to accommodate the men patients, and thus separate the sexes, as is already done in New York, in the institution under the control of the Commissioners of Charity and Correction.

NEW YORK. *Annual Report of the Marshall Infirmary*: 1875
Dr. J. D. LOMAX.

There were in the Infirmary, at date of last report, 100 patients. Admitted since, 48. Total, 148. Discharged recovered, 8. Improved, 4. Unimproved, 24. Died, 16. Total, 51. Remaining under treatment, 97.

NEW YORK. *Thirty-Third Annual Report of the State Lunatic Asylum*: 1875. Dr. JOHN P. GRAY.

There were in the Asylum, at date of last report, 572 patients. Admitted since, 432. Total, 1,004. Discharged recovered, 132. Improved, 37. Unimproved, 134. Not insane, 5. Died, 61. Remaining under treatment, 635.

An analysis of the cases admitted, shows that a large number presented little hope of recovery or material improvement from residence and treatment in an asylum. Old age, paresis, the long continuance of insanity and great enfeeblement are the factors which rendered the prognosis unfavorable in about one-third of the number admitted. One hundred and twenty-three cases had made homicidal or suicidal threats or attempts, fifteen were brought to the Asylum in restraint, and eleven were not insane. These were cases of intemperance, hysteria, and cerebro-spinal meningitis. The change in public opinion in favor of treatment of the insane in asylums, and the operation of the new lunacy law are commented upon. The histories and autopsies of some of the most interesting cases constitute a special feature

of the report. The most marked improvement which has been made is the erection of an iron fence in front of the Asylum grounds.

MARYLAND. *Forty-Fourth Report of the Maryland Hospital for the Insane*: 1874-75. Dr. JOHN S. CONRAD.

There were in the Hospital, at date of last report, 127 patients. Admitted since, 138. Total, 265. Discharged recovered, 23. Improved, 74. Unimproved, 6. Died, 14. Total, 148. Remaining under treatment, 155.

The subjects of classification, amusements, out-door exercise, and the treatment of inebriates in asylums are commented upon. The doctor expresses himself as being in favor of erecting cottages for the quiet chronic classes, in connection with the various hospitals. The detail of his experience with inebriates does not differ essentially from those recorded by others, who have gone over the same ground.

Statistics are presented in tabular form of the number of institutions erected in the United States, the number of patients treated in them, and their individual and aggregate cost. There are fifty-three State institutions, which accommodated in 1874, 22,062 patients, and which cost \$26,954,666, and are maintained at an annual expense of \$4,576,503. Notwithstanding the great outlay involved, and the importance of the subject, "with two exceptions, no provision has been made for the careful, scientific study of insanity by pathological and physiological investigations, based upon a systematic plan of reasearch." The exceptional cases in which this is being done are the New York Asylum at Utica, and the Hospital at Oshkosh, Wisconsin. The opinion is expressed, that "if the States which give such large sums of money for the annual support and treatment of this annually increasing dis-

ease, would bestow but a fractional part of its means in the direction of its true study and remedy, humanity would be much more benefited by their munificence. It becomes the duty of the State, therefore, to provide the means for the scientific study of insanity in its hospital for the insane, and require of superintendents as much energetic labor in that direction as is required, in the proper care and treatment of the patients."

PENNSYLVANIA. *Fifty-Ninth Annual Report of the Asylum for the Relief of Persons Deprived of the Use of their Reason:* 1875. Dr. J. H. WORTHINGTON.

There were in the Asylum, at date of last report, 84 patients. Admitted since, 38. Total, 122. Discharged recovered, 16. Improved, 10. Unimproved, 8. Died, 4. Total, 38. Remaining under treatment, 84.

OHIO. *Twenty-First Annual Report of the Northern Ohio Hospital for the Insane:* 1875. Dr. LEW SLUSSER.

There were in the Hospital, at date of last report, 291 patients. Admitted since, 349. Total, 640. Discharged recovered, 86. Improved, 26. Unimproved, 15. Died, 29. Not insane, 3. Total, 156. Remaining under treatment, 484.

The injudiciousness of the course, and wrong done patients by deceiving them in reference to being brought to an asylum, are spoken of, and the careless manner in which physicians fill out certificates is criticised. The effect of visits and correspondence with patients are pointed out, and the principles which should govern in allowing these privileges are stated.

The new building, which takes the place of the one destroyed by fire, is now completed and furnished, and will accommodate 600 patients.

MISSOURI. *Report of the St. Vincent's Institution for the Insane:* 1874 and 1875. Dr. J. K. BAUDUY.

There were in the Institution, at the beginning of the biennial period, 177 patients. Admitted since, 250. Total, 427. Discharged recovered, 68. Improved, 179. Unimproved, 6. Died, 37. Total, 290. Remaining under treatment, 137.

After speaking somewhat in detail of the principal therapeutic measures employed, a summary of the objects to be attained is thus given. "The rational treatment of the insane may be summed up in a few words; secure sufficient sleep, plenty of good nutritious food taken and digested, and keep the bowels in a normal condition. Secure these fundamental essentials, and seclusion in a well regulated asylum will effect a cure in all curable cases."

LOUISIANA. *Report of the Louisiana Insane Asylum:* 1875. Dr. J. WELCH JONES.

There were in the Asylum, at date of last report, 167 patients. Admitted since, 39. Total, 206. Discharged recovered, 12. Improved, 1. Eloped, 1. Died, 31. Total, 45. Remaining under treatment, 162.

The report discloses a sad condition of affairs in the Asylum. There is a lack of accommodations, and a consequent overcrowding; the buildings are in a dilapidated tumble-down condition. The water pipes are worn out and leaking to such an extent as to render portions of the building practically uninhabitable. The plastering is falling off and the floors are beginning to rot; the cellar floor in places is but a quagmire. The heating apparatus is defective or burnt out. The windows are without grating, and the balconies without guards, while painting and glazing are required for the whole building. There are no suitable kitchens or

laundry building. The water-closets can not be used, and the sills of the bath-room are so much decayed that they threaten to fall and break down with them the water tanks, thus endangering the lives of patients. Much of the furniture is unserviceable, and there would seem to be a lack of all the conveniences of a well regulated hospital. The building occupied by the more disturbed patients is without the means of proper ventilation or heating, and the only protection against cold is found in the clothing and blankets furnished. This is not all of the inconvenience to which the management is subject.

Appropriations for the support of the Asylum are made in depreciated State paper, and the salaries of officers and attendants remain unpaid. The credit of the Institution has been worn out, and unless the proper aid is soon extended, the closing or rather the opening of the doors, and turning loose the whole insane population must be the next step in its history. "The end is now reached, and *untold and unspeakable suffering* must and will follow, unless your Honorable Body grants immediate relief to these unfortunate, by a special and temporary appropriation." This is the language adopted in a memorial of the managers to the Legislature.

NOVA SCOTIA. *Eighteenth Annual Report of the Nova Scotia Hospital for the Insane*: 1875. Dr. JAMES R. DEWOLF.

There were in the Hospital, at date of last report, 279 patients. Admitted since, 114. Total, 393. Discharged recovered, 43. Improved, 7. Unimproved, 1. Died, 24. Total, 75. Remaining under treatment, 318.

Dr. DeWolf has presented an interesting report. The subjects treated of are the "Increase of Insanity," "Prevention of Insanity," "Future Provision for the

Insane," "Cottage System," "Boarding out of Patients," and "Additional Hospitals."

Two cases of "unexpected recoveries" are given. One of them had been an inmate of the Hospital for fifteen years: the favorable result was attributed to the occurrence of the climacteric. The other was a case marked by persistent and frequently repeated attempts to commit suicide. The recovery was quite sudden, and followed closely upon an effort to take her life by suspension, in which resuscitation was accomplished after nine hours of unremitting labor. This was in 1864, and the patient has continued well to the present time.

The report closes with a detail of the occurrences of the year, and acknowledgment of favors received.

NEW BRUNSWICK. *Twenty-Eighth Report of the Provincial Lunatic Asylum*: 1875. Dr. JOHN WADDELL.

There were in the Asylum, at date of last report, 242 patients. Admitted since, 110. Total, 352. Discharged recovered, 42. Improved, 13. Died, 40. Total, 95. Remaining under treatment, 257.

This is the last report by Dr. Waddell, who has been in charge of the Institution for the past twenty-five years. In reviewing the results of his professional life he has the satisfaction "of knowing that many families throughout this Province and elsewhere, have been made happy by the return of patients, who have been treated here and recovered, and have gone back to be a comfort to their friends, and to be good members of society."

TRANSACTIONS OF SOCIETIES, REPORTS AND
PAMPHLETS.

*Proceedings of the Medical Society of the County of Kings,
Brooklyn, N. Y.*

The Society has adopted the plan of reporting each meeting in pamphlet form. The one before us is the report of the meeting held on the 18th of April. It contains seventy-five pages, and resembles in appearance a Medical Journal. The most important contribution to this number is the inaugural address by Dr. Alexander Hutchins, President of the Society, on "Nitrite of Amyl."

The paper has a history of the drug followed by notices of its use, in the various forms of disease, which have fallen under the eye of the writer, and closes with an extensive bibliography. It is a very interesting and valuable paper: The drug is of special power in spasmodic conditions, and is thought to act by preventing the change from venous to arterial blood, and by arresting the process of oxidation in the tissues. Its great value in the treatment of epilepsy is probably the most important use mentioned. The editorial notes contain professional news of interest.

*Transactions of the Medical Society of the District of Columbia.
April, 1876.*

The number is entirely occupied with the report of clinical cases. The one of hepatic abscess, is of considerable interest, and led to a discussion on the part of several members, during which the whole subject was reviewed, and statistics of treatment and results were presented.

Seventh Annual Report of the Board of State Charities and Corrections of Rhode Island, 1875.

Thirteenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled, 1875.

The history of this Hospital is an illustration of what can be accomplished by determined individual effort. Dr. Knight states, that in 1863 he opened the Hospital in his residence, with twenty-eight beds, that in seven years, \$250,000 had been contributed, and the present commodious and elegant building erected. There are now one hundred and eighty-one patients in the Hospital, and one hundred and fifty-one have been discharged relieved. Including out-patients, six thousand two hundred and twenty-six have been treated during the year. This would seem to be one of the most deserving of the numerous charities, and from the character of the cases treated, and the results attained, one of the most successful.

Second Sight or Deuteroscopia. By W. A. F. BROWNE, Esq., late Commissioner in Lunacy for Scotland. [Reprinted from the *Journal of Psychological Medicine.*]

This monograph, upon second sight, consists largely of a collection of striking illustrations of the subject which are divided into classes; 1, "when the spectre or semblance of a deceased person, or of one about to die, appears to a friend or acquaintance at the moment or time of death, not to prefigure, but to announce the death;" 2, "when it appears to a living or indifferent individual in order to predict the death of a third party;" 3, "where the spectre appears to a living person to predict death, misfortune or impending events involving the individual or his connections, and lastly, where it intimates to strangers death, or evil by foul means."

The main theories, by which these apparitions are accounted for by others, are, a disturbance of the visual

organ, by which distorted pictures are conveyed to the consciousness, again a pathological condition of the nervous system, as in trance, or the somnambulic state, between which a certain, though not an intimate relation is said to exist, and an exaltation, or abolition of sensibility. Upon the mental side there are other causes attributed, a deception or delusion, a vision resulting from the religious creed or credulity of the seer, and lastly that "second sight is the creation, the innate outcome of a certain feeling or faculty implanted, though in different degrees, in all men, resembling the elevation or discoveries of the imagination, giving the belief in the supernatural, giving the perceptions of certain objects, conditions and relations among the surroundings of human beings, not cognizable to the external senses." * * * *

In explanation Dr. Browne refers to the sense of the marvelous and the supernatural, admitted by theologians and psychologists, which transcends the ordinary operations of mind, when the range of vision is increased; when exaltation of memory takes place during sleep; when sensibility, even pain are abolished or suspended by the will, or during fear or ecstasy; and when there is a transference of the ego to a second person whose passions and fate have been temporarily assumed and represented.

Professor Tyndall and his Opponents. By J. M. WINN, M. D., M. R. C. P., &c. [Reprinted from the *Journal of Psychological Medicine.*]

This is a critique upon an article by Prof. Tyndall, published in the *Fortnightly Review*, for November, 1875.

Dr. Winn has written forcibly and well upon the subject of Materialism, and has shown his ability to

measure swords with its advocates. In the monograph he seems to have found every assailable point in the article by Prof. Tyndall, and to have carried out the arguments to their logical conclusion. He points out the inconsistencies, and exposes the subterfuges of his opponent, and shows that by the use of specious pleading, metaphysical cant and high sounding words, he attempts to conceal the Pantheistic tendencies of the views he enunciates and strives to sustain. He closes with the following:

The concluding paragraph of the reply is so extraordinary that I can not refrain from quoting it at length: "The world will have religion of some kind, even though it should fly for it to the *intellectual whoredom of Spiritualism*. What is really wanted is *the lifting power of an ideal element* in human life. But the free play of this power must be preceded by its release from the *torn swaddling bands of the past*, and from the practical materialism of the present. It is now in danger of being strangled by the one or stupefied by the other. I look, however, forward to a time when the strength, insight, and elevation, which now visit us in mere hints and glimpses during moments of clearness and vigor, shall be the stable and permanent possession of purer and mightier minds than ours—purer and mightier partly because of their deeper knowledge of matter and their more faithful conformity to its laws." What does he mean by the lifting power of an ideal element, which is ultimately to supersede the old-fashioned notions derived from the Bible? He has just before stated that matter will account for all the mysteries that surround us. It is, after all, Pantheism that the Professor is driving at? Why does he not state, in plain language, what he does believe, beyond the potency of matter? What does he mean by his refined expression, "*intellectual whoredom of spiritualism*?" Have his opponents ever used any language half so bad as this? Is materialism less meretricious than spiritualism? He looks forward to a sort of millennium, when the ideal element shall regenerate the world through the more perfect knowledge of the laws of matter. In the meanwhile, those who think that literature and art are as ennobling as physical science, those who have neither time nor inclination for scientific pursuits, and the multitudes of the poor and heavy-laden, who have hitherto derived comfort from their religious belief,

must be looked upon as poor, ignorant, credulous creatures, the mere victims of a delusion. Happy indeed is it that, even by the Professors's confession, the world will have religion!

Seventh Annual Report of the State Board of Health of Massachusetts, 1875.

The report forms a volume of five hundred and fifty pages. It contains special reports to the Legislature, upon the following subjects. The pollution of rivers by drainage and sewerage, water supply, drainage, disposal of sewage, &c. The first of these subjects has been quite fully treated by James P. Kirkwood, C. E., of Brooklyn, who has prepared maps of certain of the river basins and water sheds of the State. These are valuable, and it is thought will long be used for reference.

Dr. F. Winsor, of Winchester, has examined the question of river pollution in its sanitary bearings, with the view of ascertaining the actual amount of evil now existing in the State, arising from the present mode of disposing of our filth. The question of the disposal of sewage has received attention from Dr. C. F. Folsom, the Secretary of the Board. In the examination of the subject, he visited many of the cities of England, France, Germany and Holland, and gives in detail the plan adopted in each of the places subject to visitation. The conclusions reached by the Board are, "*that where filth is made there it should be disposed of,*" "*that there should be an absolute prohibition in all cases against casting sewage or filth of any kind into any stream or pond used as a source of water supply,*" "*that no city or town should be allowed to discharge sewage into any water course or pond without first purifying it according to the best process at present known, and which consists of irrigation.*" "In order to carry out proper

systems of water supply, sewage and drainage, each river basin should be considered as a whole and by itself." "When it is possible to do so, the cheapest, and on the whole, a satisfactory way of disposing of sewage, is to discharge it where it will be carried off without returning, and be diluted in a large volume of water."

Each of the reports is a monograph upon the special subject of which it treats, and together they embody an accumulation of facts which will render them of value to the sanitarian. Great credit is due to the State, to the Board, and to the individual writers for the preparation and presentation of matters of such vital importance to public hygiene. "Sanitary Hints" by Dr. Henry I. Bowditch, and "Defects in Home Drainage and their Remedies," by Edward S. Philbrick, C. E., are practical papers which should be read, understood and practiced by the people generally, and particularly by all who build, own or rent tenements. There is the ordinary summary of the health of towns and cities, and an article on the "Registration of Diseases." The volume has numerous maps and illustrations, explanatory of the text. If the Board did nothing more than put forth this report, it alone would furnish sufficient reason for its existence.

Report of the Joint Committee on Lunatic Asylums, in regard to the Management of the Trenton Asylum.

This is the unanimous report of the joint committee of the New Jersey Legislature to whom was referred the concurrent resolution, "to investigate the general management of the Trenton Asylum, and other property belonging thereto, the medical treatment the patients therein received, &c." The result is expressed in the following language.

Your committee feel, after careful examination and close observation, that the affairs of the Asylum appear to be well managed in every respect, and express their strong confidence in the Board of Managers, the late Superintendent and other officers connected with the Institution, and trust the high character of the Trenton Asylum as a home for the insane, will continue to receive that commendation which it so justly deserves.

To this report of the committee is added one from the Board of Managers of the Asylum in which the retirement of Dr. Buttolph is thus alluded to.

In closing our official relations with Dr. Buttolph, consequent upon his acceptance of the appointment as Superintendent of the Asylum at Morristown, we shall part with him with the deepest regret, feeling our great responsibility in the choice of his successor, and being reconciled to his departure only by the profound conviction, that upon a new and wider sphere of usefulness, his varied talents and ripe experience will be more beneficial to the State and the public in the organization of the new Asylum, than in the management of one he has so nearly brought to perfection.

We are very glad to present such generous praise of one in the specialty who has unselfishly spent his life in the care of the insane, and who has been so unjustly attacked in certain quarters. His vindication is complete.

An Address on Insanity. By Dr. EUGENE GRISSOM, Superintendent of the Insane Asylum, Raleigh, North Carolina.

We have been much interested and instructed in reading this address of Dr. Grissom, which, though prepared for a popular audience, is worthy of presentation to the profession in some permanent form. The text of the address is, "*Mens Sana in Corpore Sano.*" The position is fully sustained, that insanity is a disease of the bodily organism, and not of the mind itself: that hereditary tendencies and influences constitute the predisposing element of the disease: that too often it

is the penalty of vicious lives and indulgences, or of inherited constitutional infirmities. He has presented the largest and most complete list of cases of insanity in the lives of men, illustrious by reason of their position and intellectual attainments, of which we have knowledge. This extends from the days of Socrates to our own times. The most remarkable examples of insanity, from their number and the character of the sufferers, is found in the line of British Poets. This would seem to give color to the trite saying, "Great wit is to madness near allied." Other numerous instances are found among the princes and rulers whose lives and acts constitute a notable chapter in the world's history. The essay, in its detail of cases, is a sad commentary upon human frailty, and shows how largely the world is indebted for what is really valuable and permanent in its literature, and for those military achievements which have shed the greatest luster upon its history, to the sufferers from cerebral disease. We can only conjecture what might have been their success had they enjoyed the advantage of a sound mind in a sound body.

The Discovery of Modern Anæsthesia. A critique by Dr. H. P. STEARNS, Superintendent of the Retreat, Hartford, Conn. [Reprinted from the *Medical Record*.]

This article is a well sustained criticism upon a paper by Prof. Henry J. Bigelow, of Harvard University, in support of the claim of Dr. Morton to the Discovery of Modern Anæsthesia.

The contest between Drs. Morton and Wells, and the friends of each, as to the priority of discovery of anæsthesia has been a long and hotly contested one. Dr. Stearns in this pamphlet upholds the prior claim of Dr. Wells. He has special facilities for the work, and

asserts that every essential statement made has been substantiated by the sworn testimony of disinterested persons. He writes with the force and earnestness of one who firmly believes in the truthfulness of his position, and who would carry conviction to the minds of others.

The cause of Rotation in Lateral Curvature of the Spine. By A. B. JUDSON, A. M., M. D., Lecturer on Orthopedic Surgery to the Woman's Medical College of the New York Infirmary, &c., &c. [Reprinted from the Transactions of the New York Academy of Medicine.]

The distinguishing feature of the explanation of the cause of rotation of the spine in lateral curvature, and which, the author says, has hitherto been entirely overlooked, is the recognition of the expansibility of the anterior, and compressibility of the posterior portion of the spinal column. The truth of this proposition was fully acknowledged by Dr. Sayre, in his clinical lecture before the State Medical Society, at its recent session in June last. He fully accepted the theory and gave Dr. Judson credit for first presenting a satisfactory explanation of the phenomena peculiar to this form of disease.

Auscultation of Œsophagus. By LOUIS ELSBERG, M. D., &c. [Extracted from the Transactions of the American Medical Association.]

This describes an important means of diagnosis, by auscultation, in diseases of the œsophagus. It was first introduced by Dr. W. Hamburger, of Bohemia, and has proved of great value. Modifications of the sounds may be produced,—by stricture; retention of a bolus in the pouch of the diverticulum; impacted foreign body; organic dilatation, paralysis, and rupture. The precise seat of any of these conditions can readily be determined by the practiced observer.

Fourth Annual Report of the State Charities Aid Association, to the State Board of Charities of the State of New York: March 1, 1876.

This report is transmitted by Lousia Lee Schuyler, the President of the Association, and consists largely of reports of sub-committees upon various subjects assigned them. The association is doing a good work in supplementing the labors of the State Board of Charities.

Report on the Ventilation of the Hall of Representatives and of the South Wing of the Capitol of the United States. To Prof. Jos. Henry, Col. T. Lincoln Corey, Dr. J. S. Billings, Edward Clark, Esq., F. Schumann, Esq., Commission of Inquiry, etc. By ROBERT BRIGGS, C. E. Philadelphia.

Faculty Valedictory of the Medical Department of the University of Nashville, and Vanderbilt University. Delivered before the Graduates by T. A. Atchinson, M. D., Professor of Materia Medica and Therapeutics.

A Report on Dermatology. Read before the Kentucky State Medical Society, by LUNSFORD P. YANDELL, Jr., M. D., &c. [Reprinted from the *American Practitioner*, May, 1876.]

Sulla così detta pazzia morale, Lettera al Chiar. cav. Prof. SALVATORE CACOPARDO DEL DOTTORE C. BONFIGLI, Medico-Direttore del Manicomio provinciale di Ferrara. Milano, 1876.

Opium Habit and Opium Mania Cured. STANFORD E. CHAILLE, A. M., M. D. [From the *New Orleans Medical and Surgical Journal*, May, 1876.]

Fourth Annual Report of the Franklin Reformatory Home for Inebriates, Philadelphia: 1875. ROBERT P. HARRIS, M. D.

BOOK NOTICES.

A Treatise on the Diseases of the Nervous System. By WILLIAM A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of New York, etc., etc. Sixth Edition, re-written, enlarged and improved. New York: D. APPLETON & Co., 1876.

The fact that this volume has passed through five editions might be supposed to be positive proof of real value, and sufficient even to insure its position as a standard work; but there has been a combination of fortuitous circumstances which have aided largely in its sale. Among these may be mentioned the paucity of American books on nervous diseases, and the greatly increased interest which this subject has attracted.

There are several features noticeable in this last edition. The style in which it is written would render it attractive to a certain class of minds. It is largely composed of a reputed personal experience, which, to say the least, seems incredible. For instance six hundred and twenty-two cases of cerebral congestion are classified, and other diseases in numbers as large, proportionate to the frequency of their occurrence. There is a certainty of diagnosis and treatment of the various forms of cerebral disease which fascinates the inexperienced and conveys the impression that medicine has attained the position of an exact science, in which the cause and effect are as easily traced within the body as in the chemical laboratory.

In the chapter on insanity, the same materialistic view is retained as in former editions, that "the brain is the chief organ from which the force called the mind is evolved." This definition is so framed as to include the view entertained by the author of the existence of

mind in the spinal cord, and wherever nerve force is generated. No doubt, however misleading, this will be accepted by some readers as a correct theory of the origin of mind, but there are others to whom such a doctrine can only be repulsive. The classification of the disease is in accordance with the divisions of the mind, and hence we have perceptive, intellectual, emotional insanity, &c. This classification has not even the merit of novelty, being merely a revamping of Arnold, and is utterly impracticable in clinical practice. In the diagnosis of cerebral disease, Dr. Hammond differs from the best and nearly all other authorities in giving prominence to investigations with the ophthalmoscope. In their hands they have proved to be of comparatively little value. The examinations of Prof. Henry D. Noyes, of a large number of cases in the Asylum, at Utica, and the observations of other competent ophthalmologists, entirely refute the positive assertions of the author.

The theories regarding anæmia and hyperæmia are put forth with the assurance of their being well established facts, and in too many other instances dogmatism takes the place of demonstration. Distinctions impossible in our view, and certainly not warranted by the present state of medical science are drawn between anæmia of the posterior and of the antero-lateral columns of the spinal cord, and so-called cases are cited in illustration. The application of the term "spinal irritation" to the former state will not receive the sanction of observers or writers of experience.

The changes in this edition are numerous, and much of it has been re-written. The illustrations are many of them unique, peculiar, and sensational, and far from being models of good taste. The book

has some good qualities, and contains an accumulation of observations upon nervous diseases, which will prove of interest and benefit to the reader, who may not be mislead by its assertiveness, its many exaggerations and mis-statement of principles, as well as fanciful views. The extraordinary claim to originality which Dr. Hammond makes, is, in a work of this character, simply amusing, but will hardly deceive any one who is even moderately well read in medical literature, and indeed may give rise to the suggestion that a little less originality in opinion, and more deference to the views of the leading minds in the profession, might have increased its value. The publishers, Messrs. D. Appleton & Co., have put the work out in their usual admirable style, which adds much to the attractiveness of any book.

Sixth Annual Report of the Board of Commissioners of Public Charities of the State of Pennsylvania: 1876.

Upon the subject of the care of the insane the Board is outspoken, and their recommendation clear and positive that the State should take care of all of its insane not provided for in private hospitals. "One policy, one system, one definite mode of care and treatment should at length prevail." * * * That this policy will be carried out does not longer admit of doubt it is asserted, the want of accommodations being now the only hinderance. There are now in the State Asylums 1,167 patients, and this number will be increased to 2,300, on the completion of the asylums in process of construction; an addition to the accommodations of 1,133. Upon the basis of previous years, 972 will become insane, and 816 will be recovered, improved, or will die, leaving an excess of 156 to be provided for. Upon this reasoning it is computed that the accommo-

dations to be provided will more than meet the requirements for the number and class usually committed to Asylum. The question then to be decided is what arrangements shall be made for the accommodation of those in the county houses. The recommendation of the Board of last year is again reiterated. "It consists in the establishment, on the grounds of each of the State hospitals for the insane, of detached buildings, near enough to the main institution for convenience, for the accommodation of, say, two hundred of each sex, of the chronic, and for the most part, quiet patients, whose number is always largely in excess in all our hospitals." This proposition has been made before, but so far as we know has not been acted upon except at the Willard Asylum.

At Oshkosh, Wisconsin, it is proposed to increase the size of the Hospital by erecting additional wings, not detached, in all respects similar to the main structures. It could hardly be expected that there would be a perfect uniformity of plan in the treatment of the chronic class in the various States. These will vary with the diverse circumstances of each community. The present agitation of the subject can but result in improving the condition of the insane now so poorly cared for in county houses and jails.

The report contains a large amount of statistical matter, which, however interesting it may be, we can not analyze at present. The retirement of Mr. Harrison from the Board is made the occasion of remarks indicative of the esteem in which he was held by his fellow members of the Board.

Statistics, Medical and Anthropological of the Provost Marshal General's Bureau, derived from records of the examination for Military Service in the Armies of the United States during the late War of the Rebellion of over a Million Recruits, drafted men, substitutes and enrolled men, compiled under direction of the Secretary of War. By J. H. BAXTER, A. M., M. D., Colonel and Chief Medical Purveyor, United States Army. In two Volumes, Washington, 1875.

This report comprises two royal octavo volumes, of nearly 600 pages each. They contain statistical tables, with explanatory notes, relating to all the factors concerned in anthropometry. They also embrace a record of all the forms of disease and causes of disability which were found in the cases examined for the military service. The entire number of men actually furnished during the war, in compliance with the calls of the President, was 2,690,401. Of this number, 1,331,931, men were furnished under the operations of the Provost Marshal General's Bureau. This is the basis on which the report is made. It is illustrated with charts, showing by the shades of a given color, the percentage of different forms of disease in various localities. The tables giving these percentages are arranged according to residence, occupation, nativity, &c. The tabulation, regarding insanity, shows that the average percentage per thousand was somewhat less than one; that there was a greater prevalence of the disease among the married than the single, among the light than the dark complexioned, among those of forty or more years, than those of a younger age. As regards nativity, those from Hungary far exceeded those from any other nation, being more than eleven per cent. France stands next, then Norway, Holland, Sweden, United States, Germany, Ireland, Scotland and England. This same plan is pursued regarding all the various forms of disease which were considered as sufficient to exempt from military service.

We can not attempt to review it, suffice it to say that it constitutes a summary of knowledge, unsurpassed in fullness, and in the numbers investigated, regarding, human measurements and diseases, and will long constitute an authority and remain as an enduring monument to the untiring energy and skill of its compiler.

Lectures on Orthopedic, Surgery and Diseases of the Joints. Delivered at Bellevue Hospital Medical College, 1874 and 1875.

LEWIS A. SAYRE, Professor of Orthopedic Surgery, Fractures and Dislocations, and Clinical Surgery in Bellevue Hospital Medical College, etc., etc., etc. New York: D. APPLETON & Co., 1875.

This work was written only upon the urgent request of many gentlemen that the author would give his views upon Orthopedic Surgery to the profession. These are somewhat at variance with the standard authorities, and hence the hesitation to present them for general criticism till he had confirmed, by the critical test of actual experiment, the observations previously made, and proved the soundness of the positions assumed. This time, when so many have been either relieved or greatly benefited by the treatment of Dr. Sayre, is an opportune one for the presentation of the volume before us. The opening lecture of the course very properly contains a condensed history of the specialty from the days of its founder, Prof. Andry, of Paris, in 1741, down to its skillful and successful student, our author. The work gives in detail, by illustration, and in the text, the operations for all the various deformities to which the body is subjects. The explanations are clearly drawn and forcibly presented so that a surgeon of moderate skill and experience would have little difficulty in repeating them and in reproducing the necessary apparatus. The importance of the work can hardly be overrated, and the

manner in which it is presented to the profession is certainly admirable. The good style of the writer has been embellished with excellent cuts, while the work of the printer and binder leave nothing to be desired.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, A. M., M. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, and formerly Professor of Materia Medica in the Medical College of Ohio, etc., etc. D. APPLETON & Co., 549 and 551 Broadway, New York, 1876.

Of the capability of the author to present a scientific and valuable work upon the subject of *Materia Medica*, no doubt can be entertained. He has long been a teacher of this branch of medicine, and has made the action of some of the more important remedies a special study. He has received prizes for his essays upon Quinia, Atropia and the Bromides, and more recently has given the profession an interesting and valuable article in a lecture upon the "principle of the Physiological Antagonism as applied to the treatment of the febrile state." See No. 1, volume 2, *American Clinical Lectures*, edited by Dr. C. E. Seguin.

The classification adopted has the advantage of simplicity and of practical utility. It is as follows:

PART I. *The routes by which medicines are introduced into the organism.*

PART II. *The actions and uses of remedial agents.*

Those used to promote constructive metamorphosis; those used to modify the functions of the nervous system; those used to cause some evacuation from the body.

PART III. *Topical remedies.*

The therapeutical application of remedies has, as far as practicable, been based on their physiological action, but empirical facts when fully established have also been presented.

There are several noticeable features in the work which render it valuable, and ought to make it popular with the profession. The list of subjects is large, and while the important facts in the physiological action and therapeutic uses are fully stated, the articles are so short as to be easily referred to. This has been attained by condensing the facts from the author's personal experience, and from the various articles and monographs quoted, whose titles and names of authors are given at the end of each subject. All the newer, and the recent application of the older remedies are given in the text. The style is concise and free from that verbosity and fullness which have proved an obstacle to the use of otherwise valuable works upon the subject. There is none of the speculative theorizing which has often retarded medical progress. The work is an attractive one in appearance and style, for which we are indebted to the publishers, whose good taste is a matter of general comment.

RELIGIOUS INSANITY.

A gentleman addresses a categorical inquiry to the Editor of this JOURNAL for "his opinion regarding the *fear of endless punishment* as a cause of Religious Insanity," but he accompanies it with arguments at considerable length, for a particular theological doctrine, involving a nice interpretation of the Bible, in some sense, different from the apparent meaning of its language as ordinarily received and understood by the "orthodox" churches. It is to be supposed, however, that the *object* of these arguments and interpretations is to remove or to counteract what appears to have been regarded as "a cause of Religious Insanity" to wit, "the fear of endless punishment."

It is obvious that the Editor of this JOURNAL, either in his official or his individual capacity has nothing to do with any controversies in regard to the doctrines of theology or religion. Insanity is a disease of the physical organism, principally of the brain and nervous system, though disease of the physical organism may

be brought on by a thousand "causes," whether of the kind we logically distinguish as "efficient" causes, or "occasional" causes, and these too *both* moral and physical. He is not able to recognize any reality in the term, "Religious Insanity." A man may take cold at a prayer meeting, but the consumption that follows it is not to be taken as a "Religious Consumption" or as deriving its character from the theological tenets of the pastor or of the sexton whose duty it is to see to the fire.

In almost any case of insanity there is a combination, both of causes in proper sense of the word, and of occasions. There are "*predisposing* causes" in the condition or character of the organism, rendering it liable, by exposure, to the "*occasioning* causes" of any given *circumstances*, to be overtaken by the "*efficient* causes" that immediately develop the positive disease. To many temperaments, extreme religious excitement would be mischievous or disastrous, but no more so than any other extreme excitement would be in its place. Any subject, whatever, that is allowed to seize exclusive hold of the mind and wholly absorb the attention, especially on the side of the emotions to the neglect of the food, rest and sleep, which nature requires, will produce the same disease of insanity, without obliging us to name it after the subject which was only its occasioning cause.

Fanaticism or enthusiasm, (words once nearly synonymous etymologically) is such a possession of the mind and imagination by some subject as gives it an unnatural and monstrous significance. Of course, this is an occasional cause that lies on the very border lines of insanity. But there is no necessary connection or character in the things which may become the subjects of fanaticism. It has shown itself in even mechanical trades and industrial enterprises, as well as in politics and religion. There is in many minds what may be called a mania or fanaticism of *invention*, and the history of the "South Sea Bubble," the "Tulip mania," the "Western land fever," the "Petroleum fever," the "Wall Street panics," the "California mining speculations," the fruits of which may still be seen in the overcrowded asylums of that State, illustrates the fact that fanaticisms are not confined to religious subjects alone. So too the passion of love may reach a height that overwhelms a man's better judgment, and under the neglect of physical laws bring on the morbid conditions that produce insanity. So too with any other of the passions or emotions of the human heart, grief, fear, joy, remorse, hope, despair, when overwrought and uncontrolled, is illustrated in many of the Shakespearean types of even every day humanity.

The reason why fanaticisms may have been more conspicuous in the department of Religion, is perhaps that the interest in that range of subjects, is more universal among both sexes, as being more generally applicable and of more concernment to mankind as individuals. No doubt, too, a subject that deals with the unseen universe, gives more scope to the imagination, that faculty, which a profound writer, with reference to its intended use in us, calls the "reason of faith," and so where there is no settled traditional system of doctrine and duty, to be habitually guided by, it is very possible for people to let their imaginations run riot and to be driven about and tossed with every wind and vagary of fanaticism to the extent of fairly unseating the reason, fulfilling a curse, if we mistake not, indicated by the Bible itself, when untractable minds are said to be "given up to their own imaginations." This seems to us perfectly obvious, even on the Christian claim, that a Revelation has been made to the world as to all necessary truth—necessary for practical duties—that there will still be a vast realm of high mystery, unanswered problems for human curiosity to seek to pry into, and human imagination to run wild in. Of such sort appear to us many of those questions that have been raised in regard to the "unpardonable sin," "predestinating decrees," and the exact nature and duration of the "*Gehenna*" of the Bible, all of which, whatever they may be, are certainly not referred to otherwise than by way of *allusion*, or at least only in such terms as seem intended to withhold any mere gratification of curiosity, as if such knowledge were unsuited or even injurious to our present condition, or as if any mere human phraseology in regard to things altogether ultramundane, would anyhow leave us still without comprehension of the realities, prior to the actual experience of the future state. And this reasoning applies to the descriptions of Heaven as well as Hell.

The Bible declares that the "secret things belong to God" and where is the human language that could be read, a medium conveying to the human mind a scientific knowledge of things altogether beyond the range of human experience? By demonstration, such things can only be objects of *faith*, which appears to be the mental quality most insisted upon by the Bible, as most meritorious and best suited to man's present state. A Christian life is described as a "walking by faith and not by sight," whether it be the sight of the eye, or the sight of the intellect, which, as Herbert Spencer says, is only an *eye* of the mind, altogether distinguishable from the will and the heart, or personality of a man. In

fact it might be a tenable thesis, that the intellectual ability to detect the whole scheme of Divine Providential operation, if there be such, would go far to upset the Divine Moral Economy under the present constitution of things. Scholastic philosophy has indulged in many subtle speculations, and propounded many shrewd and probable guesses as to these "secret things," some of which may have been appropriated to found religious schools and sects upon, but the oldest historical Protestant body of the English speaking race in its "Thirty-nine Articles of Religion," set forth as long ago as 1562, though bearing many traces of scholasticism in regard to abstruse questions of theology, laid it down as a common sense rule, that "we must receive God's promises in such wise as they be *generally set forth* to us in Holy Scripture, and, in our *doings*, that will of God is to be followed, which we have *expressly* declared unto us in the word of God."

It is then but evidence of a morbid tendency, itself, to find persons pushing beyond definite and traditional dogma into questions not solvable by our present means of knowledge, especially when such abstract speculations are directly connected with subjects that stir most powerfully the imagination and emotional feelings. So the objections made to certain religious truths lie rather against the *mode* in which they are treated or presented to the peculiar mind. Our correspondent's arraignment of certain religious doctrines as directly productive of "Religious Insanity," goes rather to show that religion should not be identified with mere vague feelings and emotionalism, with "frames" and raptures, but with a reasonable faith and sober views of practical duty, that true religious life consists more in *being* and *doing* than in thinking and feeling.

In this light, the questions, whether the *Gehenna* of Revelation is an arbitrary *penalty*, like those of human laws, or a natural inevitable *effect*, according to the constitution of things, or whether it implies only an enduring *process* of destruction for the "wastage" of the universe, instead of an immortality of individual suffering, (it has been treated from all these points of view,) are questions, the decision of which could make no practical difference in matters of duty or in the actual weight of the awful sanctions thus impressed upon the distinction between good and evil, right and wrong. It must be an abnormal state of mind that could base any practical modification of thought, feeling or action upon an estimate of the difference between an "age" or "ages of ages" in a *Gehenna*. And as to the question of the "fear of *endless* punish-

ment being a cause of insanity," to ordinary apprehension, it must make little or no difference, were the word "endless" altogether left out. It is the sudden irreparable nature of temporal losses and calamities that often produces despair, and unseats reason, though we apply no such word as "eternal" to them. The same effect may be produced upon a person, who, after a prosperous career of crime, is suddenly confronted with the certainty of the loss of his personal liberty for even ten or twenty years.

It ought to be enough to say that the dread of *absolute* perdition should not produce despair or insanity, so long as the warning is coupled with the announcement of an easy way of avoidance or escape, which is claimed to be the very token of Divine mercy and goodness, which would have little scope, unless there were some substantial evil, the deliverance from which constitutes "salvation."

It is not going out of our sphere as a Scientific Journal to state, in accordance with the principles with which we set out in this article, that in the presentation of such subjects, to large masses of people, reason and sobriety should not be lost sight of, that the reality or value of religious "experience" should not be made to depend upon the degree of individual excitement, and that the motives of fear and terror should not be kept in the foreground as the chief and worthiest incentives to true moral action, though the reality of the consequences of evil, is by no means to be ignored. To warn a person of the dangers of a precipice, does not fascinate a healthy mind with a desire to throw himself over, and as for disordered ones, they must be looked after. We suppose that we need hardly remind the clergy that they are required to "prophesy according to the *proportion* of the faith," and as in any given multitude of people, there must always be some of more powerful imaginations and more delicate nervous organization than others, and some with constitutional predisposition to nervous disease, it would be well for them to carry out the precept to be "wise as serpents and harmless as doves," for it will hardly be disputed, we imagine, that in the ranks of the clerical profession itself there may now and then be minds of somewhat peculiar and even irregular psychological action. Every great religious movement, indeed, from John Knox, and John Wesley, to Moody and Sankey, has been accompanied with its percentage of insanity, but that only shows that there is in every community, at any given period, a certain amount of constitutional or incidental morbidity ready to be developed into insanity by any suitable occasion, and religious excitement only stands prominent among the number of moral influences.

Of course, the whole subject of causation becomes somewhat obscure when we undertake to bring into the account the relation of moral principles, conduct or conditions to the physical disease, that is a subject for religious or moral teachers and guides, but it is the physical lesion that comes within the scope of medical science. It is on this principle that the tabulation of causation in the reports of this Institution, since 1866, is based. On this whole subject we would refer our correspondent to the "Thirty-Second Annual Report of the Managers of the State Lunatic Asylum, Utica, for the year 1874," in which tables of causation are given for the whole period since its establishment, as well as a sufficient explanation of the principle on which such tabulation is now made.

We might add, from a literary point of view alone, that it would be a singularly new test of the correctness of religious doctrines, to go into the question of their *physical* consequences, but it is a question quite outside the jurisdiction of this JOURNAL or of the specialty itself.

SPREAD OF CHOREA FROM IMITATIVENESS.—One of those curious illustrations of the extension of disease by the influence of example not uncommon in the history of neuroses, has lately come under our notice in an educational institution in this State. One of the boys, aged about twelve years, was aroused from his sleep in the night by the cries of a lad in an adjoining bed, who suffered an attack of nightmare. The boy was excited and alarmed, and next day exhibited a well developed attack of chorea in his right arm and hand, the muscles of which were in constant agitation. Within a few days four other boys in the school were attacked with the same disease, which affected different parts in the different cases. It is probable that other cases will arise unless the subjects of the disease be speedily removed from the school. We may remark in passing that chorea appears to be a frequent affection among children in California. Cases have come under our observation from time to time for many years. They are generally curable by tonics and suitable regimen. Citrate of iron and strychnia has given us more satisfaction than any other medicine.—*Pacific Medical and Surgical Journal*.

SUMMARY.

Dr. J. T. Steeves has been appointed Superintendent of the Provincial Lunatic Asylum, at St. Johns, New Brunswick, vice Dr. John Waddell, resigned.

—Dr. E. T. Wilkins, of Marysville, Cal., late Commissioner in Lunacy for that State, has been appointed Superintendent of the New Asylum, at Napa, Cal. Dr. L. P. Dozier of Napa, is his assistant.

—Dr. L. R. Landfear has been appointed Superintendent of the Western Hospital for the Insane, at Dayton, Ohio, vice Dr. John H. Clark.

—Dr. E. E. Smith, Fourth Assistant of the New York State Asylum, at Utica, has accepted the position of First Assistant in the New Jersey State Asylum, at Morristown, N. J. This Institution will receive patients, by the 15th of August.

—Dr. Richard S. Steuart, one of the oldest men in the specialty, died recently in Baltimore, at the advanced age of seventy-nine years. He was connected with the Maryland Hospital for the Insane, for forty-five years, and severed his connection with that Institution but a few years since.

DEATH OF DR. GEORGE COOK.—We have never before been called upon to record so sad and terrible a death, occurring in any American Institution, as that of Dr. Cook the Superintendent of Brigham Hall, at Canandaigua, N. Y. He was killed on the 12th of June last by being stabbed in the neck, by one of the patients under his care. The wound inflicted was of a severe

and dangerous character, the knife entering the neck and severing both the internal and external carotid arteries. From the hæmorrhage unconsciousness soon supervened, and the Doctor never rallied, though life was not extinct for some four or five hours.

The statement of the patient was that he had meditated the homicide for a month or more, and that he had made the necessary preparations. The instrument used was a pocket knife with a long sharp pointed blade, which he had carried on his person for some months. He had been insane for some years and entertained delusions of suspicion and poisoning on the part of his friends. After going to the Asylum these were readily transferred to the Doctor, whom he asserted was employed to destroy his life by a system of drugging, both in food and medicines. Certain symptoms of his disease, as pain in the head and stomach were by him referred to the effects of the drugs administered. Another delusional element entered into the case. He asserted he was unjustly detained as a patient, and that having unsuccessfully sought for legal aid, this act would lead to judicial investigation which would result in his being pronounced sane, and that he would be fully justified in killing the Doctor. He was sent to the Asylum at Utica. On the fourth day after his admission he made a murderous assault upon Dr. E. E. Smith, one of the Assistant Physicians. The manner of the attack, the weapon used, and the intention were the same as upon the former occasion; the result fortunately was very different. A punctured wound, the length of the blade, was inflicted upon the left shoulder, which just escaped the joint. The hæmorrhage was free, though no large vessels were injured, and the wound healed readily without serious results. The patient made no resistance, but gave the knife to an attendant immediately after the assault. This he

asserted, he had carried sewed in the straps of his vest for fifteen months, with the idea of using it to commit suicide. In this way it had escaped search upon his admission to the Asylum. He has been transferred to the Asylum for Insane Criminals at Auburn.

Dr. Cook the unfortunate victim of this tragedy was fifty-five years of age at the time of his death. He was born in Cayuga County, and was graduated at the Geneva Medical College, in 1840, and on the 24th of June, 1848, was appointed Second Assistant Physician in the New York State Lunatic Asylum, at Utica, under Dr. Brigham. On the resignation of Dr. C. H. Nichols, (now of the Government Hospital,) he was appointed First Assistant, April 1st, 1849. On the death of Dr. Brigham, September 8, 1849, he had charge of the Institution till the 8th of December, when Dr. Benedict was appointed Superintendent, under whom he continued as First Assistant, till July 1, 1852, when he resigned, and soon after went to Europe to visit hospitals, and advance himself in knowledge of the specialty. After his return from Europe in 1853 he again entered the service of the Asylum at Utica, then under the Superintendence of Dr. John P. Gray, and subsequently resigned, and in 1855, opened the private Institution, Brigham Hall, at Canandaigua. In this enterprise Dr. John B. Chapin, now Superintendent of the Willard Asylum, afterwards became associated with him, and still retains his interest, though since his removal to Ovid, Dr. Cook has had sole medical charge. The Institution under his care was a successful enterprise. An Ontario County paper says of him:

The growing popularity of the Institution up to this day, demonstrates how successful the great work of Dr. Cook's life has been. While giving his first thoughts and warmest sympathies and best efforts to the cure or relief of those committed to his medical care, he has filled faithfully and ably many positions of honor and trust to which the voice of the people invited him. He served success-

ively as a Member of the Board of Trustees of the village, Supervisor of the town, and Member of Assembly. He was also one of the originators and first President of the First National Bank of Canandaigua. An ardent Republican, he was at the same time a man of independent thought, with positive convictions and honest purposes—never so much of a partisan as to forget the higher duty of a citizen, and always prompt to sustain the right and rebuke the wrong wherever they were to be found. By his death the profession to which he belonged is bereft of one of its brightest ornaments, and this community of one of its most warmly beloved and useful members. The deceased leaves a wife and two children, a son and daughter, upon whom this sudden and terrible blow falls with crushing weight. The bereaved family, in their dire affliction, have the earnest, heartfelt sympathy of the whole community.

ASSOCIATION OF SUPERINTENDENTS OF INSTITUTIONS FOR IDIOTS.—A convention of Superintendents of Institutions for Idiots, was held on the 6th, 7th and 8th of June, at the Pennsylvania Training School. The gentlemen present represented institutions containing 1,300 inmates. The result of this conference was the formation of an Association of Superintendents of Asylums for Idiots, to which, however, others not connected with institutions were admitted to membership. The following officers were chosen. President, Dr. E. C. Seguin, of New York; Vice President, Dr. H. B. Wilbur, of Syracuse, New York; Secretary, Dr. Isaac N. Kerlin, of Media, Pennsylvania. The first regular meeting of the Association, will be held at the Asylum for Feeble Minded, at Columbus, Ohio, June 5, 1877.

FEIGNED INSANITY.—In a lecture before the students of the Medical Department of the New York University, Dr. A. E. Macdonald starts with the proposition, that to all intents and purposes, moral and feigned insanity are convertible terms. After speaking of the forms of insanity, which have been attempted to be feigned, of the difficulty of success, and the various

criteria of discriminating between the feigned and real, he takes the case of Joseph Waltz in illustration. He presents in a very clear and forcible manner the history of the case, which appeared in the July number, for 1874, of this JOURNAL. He also refers to a paper by Dr. A. O. Kellogg, placing Waltz in the category of epileptics, and makes this very apt remark.

An epileptic who had no observed seizures before his crime, and who spent a year in prison after it, under close surveillance, and still had no seizures, was, to say the least a curiosity; so also was an epileptic paroxysm, which, irresistibly impelling its victim to murder, yet allowed him to hesitate, to reason with himself, to postpone the blow for a time; which guided him to get his weapon from a distance, to strike a single blow, and follow it with another only when he found that it had been ineffective, which left him with a perfectly clear recollection of everything that had happened, and which, conveniently continuing its influence for three days, enabled him to make elaborate efforts to conceal the traces of his crime and an elaborate attempt to divert suspicion to others. And an epilepsy which went the length of impelling to the commission of two homicides, showed an unusual departure from rule in revealing itself in no mental deterioration observed during life, and no cerebral changes discovered after death.

Dr. Macdonald thoroughly demolishes the flimsy structure, which was evolved entirely from Dr. Kellogg's "inner consciousness" and concludes.

It is not worth while to make further reference to this case of factitious insanity. The points already presented will serve to convince you that I did not exaggerate, when I told you that in the life of any man accused of crime incidents and eccentricities could be cited as suggestions of insanity, and that, under the present unfortunate system, *experts* could always be found to raise them to the dignity of proofs.

—At the meeting of the Association of Superintendents, in June, a resolution was passed authorizing the publication of the proceedings in the July number of the JOURNAL, the editors consenting to delay till the 10th of July. On the 15th, a letter was received from Dr. Curwen, the Secretary, stating that circumstances, beyond his control, would prevent the proceedings being ready for this issue. They will appear in the October number. This has delayed this number of the JOURNAL.

AMERICAN
JOURNAL OF INSANITY.
FOR OCTOBER, 1876.

NOTES ON ASYLUMS FOR THE INSANE IN
AMERICA.*

BY JOHN CHARLES BUCKNILL, M. D., F. R. S.

The asylums and hospitals which I have hitherto mentioned are obviously conducted with enlightened liberality, but it will now be my task to describe visits to other large asylums, the condition of which is thoroughly discreditable to the communities which are answerable for their great and glaring defects. I say to the communities, for in America no man can wholly shunt the blame of public evil on to his neighbor's track; and if these things are as I shall describe them in the great cities of Philadelphia and New York, why do not the men and women of those cities cry aloud against such cruel shortcomings in the administration of their charities until the evil is abated and finally removed? The numerous and excellent chartered hospitals for the insane in the States afford evidence—nay, full proof—of the worthy feeling of a large portion of the wealthy members of the community towards the mentally afflicted; and the costly and commodious State Asylums, conducted in a spirit of generous wisdom, testify to a keen appreciation of duty on the part of the population of the country at large. How is it, then, that the insane poor of these most important cities are left in a condition which no American true to his country's honor and to the instincts of his race can think of, if he knows it, without regret and dissatisfaction? The explanation which I have heard is that the politics of the cities are more corrupt than those of the States, and tend to the selection of coarser instruments of the popular will; and if this be so, the most helpless

* Continued from the July number of this JOURNAL.

and heavily afflicted of their citizens have more to fear from the degradation of authority to its lowest level than any other class, for they have no power in the social scramble. The state of things which I shall now describe will no doubt be thought to justify the severest censures of the medical press, and if I have claimed exemption from some of these censures in the pages of a journal honored for its long and able advocacy of the rights of the insane to humane and skilful care and treatment, I have only intended to do so on behalf of the skilful and the humane. That I have no wish to shield the evil results of incompetence or of ill-judged parsimony from their merited exposure and reproof, the following narrative will abundantly testify.

The insane poor of the city of Philadelphia are maintained in one department of a huge collection of buildings called the Blockley Almshouses, containing altogether about four thousand inmates, and consisting of the lunatic asylum, a general hospital, and a poor-house proper. I was taken over the Asylum by Dr. Isaac Ray, who had been one of the governors until, at the last election, he was ejected from office. This asylum, I was informed, was constructed to contain five hundred insane inmates, but at the date of my visit last spring it did actually contain eleven hundred and thirty patients, and the overcrowding was consequently frightful. One result of this overcrowding was that, on attempting to make some estimate of the sleeping accommodation, I was informed that at night beds were strewn on the floor in the corridors and on every available space of flooring, so that there was no place without beds, some upon bedsteads and some upon the floors. I asked Dr. Richardson, the medical superintendent, what the state of the air might be when they opened the doors in the morning. The degree to which it must be hot, fetid, and morbid, is somewhat sickening to think of. I saw many patients in strait-waistcoats, I can not tell how many, but on the men's side a considerable number; and the patients there were very noisy and turbulent. I saw no occupation and no means of occupation, except a few women engaged in needlework. There were no grounds for exercise, nor any airing-court fit to be called such, but only two or three small high-walled spaces bare of all convenience and comfort. But the separate ward provided for excited female patients, and called, according to American custom, the lodge ward, was the most remarkable feature of this Asylum. I was informed that it was constructed to contain nineteen excited patients in single rooms, but that at the time of my visit sixty-five patients were actually "accommodated,"

as they said, in it. It was intended that each patient should have the use of a single room or cell, the dimensions of which, I learn from the subjoined statement by Dr. Ray, are six feet by ten; and "these lodging-rooms are occupied at night generally by two, and frequently by three persons," and all of them, as I was informed, were regularly put into strait-jackets to prevent mischief during the night.

The counterpart of the above statement was made by me to the American Association of Superintendents of Asylums, and has been published in America without contradiction or extenuation; but yet it seems to me so incredible that I must ask to confirm its accuracy by the remarks made by Dr. Ray himself, in a paper read by him before the Social Science Association of Philadelphia, in 1873, in which, speaking of this Asylum, he remarks:—"How far the first two requisites—air and room—have been provided in the buildings occupied by the insane at the almshouse, a few facts will show. The space occupied by these patients and their attendants, while within doors, is not, I may safely say, more than half of what is declared by competent authorities to be the lowest limit compatible with the hygienic conditions of a hospital. An accurate calculation, for which I have not the requisite figures at present, would probably show that one-third of the proper space would come nearer the truth than one-half. Most of the lodging-rooms are six feet by ten, and are occupied at night generally by two, and frequently by three persons. The rest of the patients are disposed of in large dormitories containing about thirty beds, with a few more placed directly on the floor. Of course these patients disturb one another, as persons less excitable would, and for many sound, regular sleep is out of the question. With those in the single rooms the case is still worse, for they not only breathe a highly vitiated air, but they are in danger from the destructive propensities of one another. If homicide is not committed every night in the year, it certainly is not for lack of fitting occasion and opportunity. Twice within the last few months it was prevented by the merest accident. Now, it is well understood by medical men that if there is one bodily condition more restorative in mental diseases than another it is sleep, and here we see how it is provided for at the Blockley. . . . In regard to means of occupation, the deficiency could scarcely be greater, while its ordinary consequences are rendered all the more deplorable by the crowded state of the house. There can be few more pitiable spectacles than that witnessed there every day, of hundreds of men overcharged

with nervous excitement, whose restless movements are confined to the limits of a narrow hall, and of as many more, silent and depressed, crouching down in corners and by-places—all of them worrying one another, and speedily losing, from sheer inaction, whatever of mind their disease may have left.”

The Asylums for the insane poor of the city of New York are situated upon islands in the harbor; the old Asylum, now occupied exclusively by female patients, upon Blackwell's Island, and the new Asylum for men on Ward's Island. I visited the men's asylum first, by invitation and in company with some eight or ten superintendent's of other lunatic asylums, who had been attending the annual meeting of their specialty. This Institution was erected four years ago, at a cost of £200,000, and was designed to accommodate 434 patients, but at the date of my visit, and without any increase of accommodation, 673 patients were crowded into it. Dr. Macdonald is the chief resident physician, having the medical charge of the patients, but the main executive duties of the Institution are entrusted to a warden, who is not a medical man, but who is virtually the chief officer. Medical responsibility is therefore at its lowest ebb. Architecturally the Asylum, of variegated brick, is very handsome, but a comparison of its interior with its outward show reminded me of some pretentious structures in which ostentation has exhausted the means of the builders, and which are significantly called Follies. The corridors were uncleanly, ill-furnished, and gloomy, all the windows being thickly protected with prison-like lattice. There were no enclosed grounds or courtyards of any description. Those patients who were strong and orderly enough to perambulate the island under the charge of attendants got occasional exercise in the open air; but the other inmates were confined to the dismal interior of the building, and I saw no provision of means for occupation or amusement. The patients appeared to me to be ill cared for, badly clad, and poorly nourished. They lounged listlessly about the unswept, barely furnished corridors, and were almost as frequently crouching on the floor as seated on a bench. Their clothing was dirty, worn and of the commonest material, and seemed to me insufficient for the purposes of mere warmth and comfort. I observed that many of the patients had no stockings or socks between the skin and the shoe-leather. The idea that the patients were poorly nourished was, I own, a mere impression arising from their pallid and emaciated appearance. I know nothing of their dietary, which, indeed, I have found to be a rather mysterious subject in all American

asylums. I do not know that I ever met with a printed dietary in any American asylum or asylum report. However, in this instance, when asked, in the presence of the many professional brethren who were with me, what I thought of the Asylum, I was bold enough to express the opinion that the patients appeared to me to be badly clad and insufficiently fed, and to ask what the weekly cost might be; and the answer seemed to justify my boldness, for we were informed that the weekly cost was one dollar and thirty cents, or 4s. 4½d., or, if calculated in currency, still less. Now the weekly cost in the Asylum for the State of New York is four dollars and a half; and, on inquiry, I found that the average weekly cost in the State Asylums was not under four dollars, or 16s., which contrasts liberally with the average cost of maintenance in this country of 10s. a week, for the county, and 11s. 8d. for the borough asylums; the reason thereof being that the high price of clothing and comforts and the high rate of wages more than counterbalance the low price of food in the States as compared with the like expenses of this country. It may well be that some explanation can be given of the difference in the weekly cost of maintenance between four dollars and fifty cents at the asylum for the State of New York, and of one dollar and thirty cents at this asylum for the city of New York; for I can not believe that, however accurate my general impression as to the condition of the patients in the latter institution might have been, the whole of this difference could be so accounted for.

After leaving Ward's Island we visited and thoroughly inspected the Asylum for Female Lunatics on Blackwell's Island, under the guidance of Dr. Parsons, the active and devoted Superintendent, who informed us that the buildings, which would suffice for the accommodation of 750 patients, were actually made to contain 1200. The patients were better clad and seemed better nourished than the male lunatics. Many of them were occupied with needle-work, and their general state and aspect was far more satisfactory than that of the inmates of what may perhaps be called the brother institution. The asylum, however, was miserably overcrowded; even attics immediately under the roof, and quite unfit for habitation, being densely occupied. The refractory ward was, as usual, at some distance from the main building, and here I found myself in a bewildering tumult of noisy and excited women, many of whom were restrained in strait-waistcoats. I observed, however, that this free use of restraint had not been altogether efficacious in preventing such conflict as leaves behind the tell-tale marks of

black eyes and bruised faces. I regret that it did not occur to me to ask in this or in any other American asylum to be permitted to inspect the register of injuries and accidents ; but if such a record be kept, I think it more than probable that a faithful comparison of it with that which the law imposes on our own institutions would clearly prove that non-restraint does not encourage, nor restraint diminish or prevent the occurrence of injuries from violence. In this refractory ward there was a peculiar arrangement which I have not seen elsewhere. I found the patients in two parallel galleries placed back to back, and glazed the whole length of the outer sides. I think that the width of these galleries did not exceed twelve feet, but a slice of about three feet of the whole length of them was cut off from the use of the patients by a substantial rampart of iron bars, strong enough to confine lions and tigers in a menagerie. This formidable construction, I was informed, was intended to prevent the breakage of window-glass.

Miss Dix, whom I had the great pleasure of meeting at Washington, on hearing that I intended to return home by way of Canada, earnestly requested me to examine the asylums at Montreal and Quebec, and especially the one at the last named city. I made it a point of duty to comply, and it certainly is with a feeling of duty, and not of pleasure, that I now record some observations made at my visit.

Although Upper Canada and New Brunswick have provided themselves with public asylums at Halifax, Toronto, and London, which enjoy a very high reputation, the great province of Lower Canada possesses no public lunatic asylum, the authorities having been satisfied to contract for the care and treatment of the insane supported from public funds, with the proprietors of private asylums at Montreal and Quebec. The proprietors of the asylum, or rather asylums, at Montreal are the Roman Catholic Sisters of Charity, who appear to have a central point for their organization in America in that city ; at least I was told so by the sisters whom I found in charge of an inebriate institution at Old Mount Hope, near Baltimore, to which they were adding a kind of private hospital or sanatorium for general patients who could afford to pay £4 a week.

I found the asylum for male patients at Montreal in the old cavalry barracks. It was established in the building which was formerly the gaol of the barracks, for which the good sisters paid a rental of £50 a year. No building could well be more gloomy and unfit for the purposes of an asylum than this soldier's gaol.

There was, however, in addition to this old cage, a more recent and less obnoxious building, occupied by idiot and imbecile children. I was informed by the sister who conducted me over the institution that it contained 160 insane inmates, and that the asylum for female patients under the same management was about four miles further in the country, and that the asylum for men also was in a short time to be removed to a new house which the sisterhood had built for the purpose, and which was described to me by the sister as being very costly, and a great financial enterprise for them. At the time of my visit numerous wet beds were being refilled with straw in the gloomy and dirty corridors, or rather passages—a cause of great offensiveness; but the interior, if clean as a model prison, must ever be dark and dismal. The courtyard was truly a prison-yard; yet there was a large shed in it for exercise, a provision which is rare in the States. All the material of care or treatment was bad or absent, and there was actually no medical attendance whatever. The patients were solely under the charge of the sisters, aided by the attendants, who were their servants, and I was told that they had never been visited by any medical officer. This great defect was about to be remedied to some extent, and indeed a medical officer had already been appointed, who was to visit the patients once a week, but his first visit had not yet been paid. It is true I did not see any sick folk among the patients, with the exception of an idiot child, whose hand was inflamed, and evidently painful. I asked the sister what was the matter, and she replied, “Ah, indeed, it is red. I do not know.” On examination, it was evident that the metacarpal joints were in a state of scrofulous disease. And yet, notwithstanding all these sad defects, there was something about the place which appealed strongly to my sympathies after all I had seen in the States. There was no patient either in restraint or seclusion, although there were several to whom I think that my friends in the States would have deemed it dangerous to allow the free use of their limbs; but these soothed and tranquillized with gentle words and petting gestures by the sister in charge, in a manner which showed that she was quite accomplished in the art of winning the good-will and calming the excitability of those over whom she was placed in such a singular position of feminine authority. Altogether I thought that these good women were doing good work, although the circumstances and conditions of it were exceedingly disadvantageous.

The next asylum I visited was a small private asylum in the neighborhood of Quebec, kept by Mr. Wickham, and which re-

quires no further notice than the remark that it is combined under the same roof with a home for habitual drunkards, who, however, occupy a different part of the building; which is a better arrangement than that which obtains in some of the hospitals for the insane in the States, where habitual drunkards are to be found in some number intermixed among ordinary lunatics, to whom their association is often irritating and mischievous.

The last asylum I visited in America was the large proprietary institution called the Beaufort Asylum at Quebec. It belongs to two or more physicians residing in Quebec, and contains 814 lunatics, supported from public and charitable funds. There being no Poor Law in Canada, it would not be strictly correct to call the inmates pauper lunatics, but they correspond with that class of patients in our country. As an unofficial and unauthorized visitor I feel restrained from expressing opinions upon the management of this institution; but as these patients are public patients, I do feel myself quite at liberty to state facts which I myself observed at my visit to this place on the 16th of July last.

The asylum is situated about four miles from the citadel on the Beaufort road, and consists of two separate buildings for men and women at a short distance from each other. The women's building has been recently to a great extent rebuilt. I found numerous workmen busily engaged in completing the roof of the central, or entrance pavilion. The officer in charge was the steward, who told me that there was no medical men on the premises at the time of my visit, but that his son, who was a medical student, though not officially connected with the institution, would show me round. The steward or manager apologized for the disorder in which I should find the institution in consequence of the recent reconstruction of a great part of the women's building. He told me that in the preceeding January a fire had broken out in the women's wards, and that after that fire seventeen or twenty-seven (I forgot which) of the female patients were missing. The remains of eleven of these missing patients were found, but the others were not found or could not be distinguished. At all events, none of them had been heard from since, so that it was supposed that all of them had lost their lives in the fire.

The women's wards I found crowded and disorderly, but the disarrangement caused by the process of reconstruction might be some excuse for this, and perhaps also for the large number of patients who were in seclusion. But the seclusion cells, of which there was a large supply, were not newly built, and they bore in

their offensive atmosphere evident signs of frequent use. I hope that I was either misinformed or that I misunderstood the nurses, as to the length of time that some of these patients had been in seclusion in these dark and offensive cells.

A shallow brook runs through the small courtyards at the back of the asylum, and in this brook I saw female patients wading ankle deep to cool and amuse themselves; and two of them had pulled up their clothes above the waist, and the attendants did not interfere with an exposure which was the reverse of decent.

The building for the male inmates had not been implicated in the fire, and its condition, therefore, may be accepted as nothing unusual. The wards were spacious enough, though bare and cheerless. It was a hot, sultry afternoon, and almost all the inmates were out of doors. I found them all congregated in one small courtyard in a *tout ensemble* of lunacy not easily to be described. I can not state with accuracy the size of the courtyard, but it did not appear to me to exceed one hundred yards in breadth, by eighty in depth. Whatever its size might be, it was divided into two pretty equal parts by the above-mentioned brook, traversed by a bridge, and the half of the yard furthest from the building and beyond the brook was occupied by a crowd of, as near as I could estimate, about three hundred lunatics. The bridge was kept, and the crowd watched by a man lying on the ground in his shirt-sleeves, in whom it was not difficult to recognize an attendant. I was invited by my companion to observe the lunatics from the safe end of the bridge, and for some time I did so, and I must say that I never before in my life saw anything like it. The lunatics appeared to be quarrelling and fighting, without the least control, and there seemed to be no attendants with them whatever. This, however, was a mistake, for after a while I crossed the bridge, and on inquiry discovered three boyish persons, who announced themselves to be attendants. Skirmishes were still proceeding among the patients, and on my asking the attendants why they did not prevent them they gave me no reply. Not only were the patients permitted to quarrel and struggle without interference, but I observed several of them lying on the ground with the most indecent exposure of the person. Considering the amount of excitement in this sweltering crowd, there was not much mechanical restraint. I observed two or three men with their wrists in iron rings attached to leathern belts, which is certainly a mild form of restraint, since it leaves the muscles of the arms and chest some freedom of movement. I saw no strait-waistcoats. In front of

the men's building there are grounds large enough to make fairly good airing courts, and why they are not so utilized could not be explained.

Escaping from this mad medley, I asked to be shown the refractory ward, and was conducted to the top story of the building, where I found the ward empty, with the exception of two patients in seclusion. The doors of the cells were fastened with three or four massive iron bolts. On opening the first cell I found it occupied by a poor, sickly-looking young man, in a dripping wet shirt; the floor of the cell also was covered with water. I was told that the patient had recently been brought up from the yard, where he had thrown himself into the brook. It would have added to his comfort, and the safety of his health, if they had given him a dry shirt when they shut him up. Hearing shouts proceeding from another cell, I asked that the door of that also might be opened; but I was told that it could not be done, as the cell contained a very dangerous madman indeed. Assuring the attendant that I was no more afraid of such a man than he was, and perhaps not so much, and that to refuse my request would have a bad look, he at last consented to withdraw the bolts, and behold a little, shrivelled old man in a state of chronic mania, noisy and troublesome enough no doubt, but no more dangerous than a monkey, as far as I could judge. Mischievous, with his restless loquacity, he might well be among the dense crowd of lunatics below, and perhaps this was why he occupied this seclusion-cell.

Surely it is the duty of the Government of Lower Canada to provide public asylums for public lunatics, and not to farm them either to nuns or physicians. I am told that the responsibility of not doing so lies entirely with the Provincial Government, and is in no way shared with the government of the Dominion, and that the governments of the Queen of England and of Canada have no power or authority whatever, and no position even from which advice may be tendered, on such matters. One cannot but wonder, under such circumstances, what the state of the insane may be in other colonies and dependencies of our great and scattered empire.

In publishing *Notes upon Asylums for the Insane in the United States*, it will be expected that I should make some remarks upon the extraordinary state of medical opinion which permits and defends the use of mechanical restraint in institutions otherwise excellent. In doing so I shall endeavor to leave out of the count the

condition of the insane in those institutions where political corruption or stupidity renders it impossible to apply a complex system of treatment, which can only be efficacious under an enlightened and liberal management. The pages of *The Lancet* are not likely to influence the politicians of New York, who think their insane sufficiently well cared for in the asylums I have described; neither will they have much weight with the gentlemen at Philadelphia who are in the habit of placing three violent lunatics to sleep(?) in the same cell, prudently enough protecting them in some degree by strait-waistcoats. But it is to be hoped that a fair and frank challenge to the medical superintendents of the State asylums and the hospitals for the insane will be accepted in the friendly spirit in which it is given, and that they will not refuse to show reasons why they adhere to a mode of treatment which in this country is condemned by the almost unanimous voice of the profession and of the public.

A considerable proportion of poor lunatics in nearly all the States are still detained in the county almshouses, and even in the gaols. In Missouri, Dr. Compton states that "a stream of acute and violent cases passes from the gaols to the asylum," as room is made for them in the latter by the discharge of chronic cases to the care of their friends; and the medical superintendents at the Auburn meeting last year passed a series of resolutions on the detention of lunatics in almshouses, of which the following words are the preamble:—"The condition of the insane in the county almshouses in the different counties of this Commonwealth is such as to excite our most profound sympathy, and to arouse in us a determined effort for their comfort and relief." And we learn incidentally from a statement made in the *Boston Medical and Surgical Journal* for November last, that the insane inmates of the almshouses in the vicinity of Chicago are still habitually secured by chains.

The insufficiency of asylum accommodation, especially in the southern and western States, is no doubt at the present moment rather a social and financial than a medical question. Debt and the increase of population have outrun the development of the resources of the country, and the incidence of taxation, general and local, is extremely oppressive. With the continuance of peace and the return of prosperity, the provision of suitable and sufficient accommodation for the care and treatment of all the insane will become an imperative duty with the instructed and humane Americans; but there can be no doubt that medical opinion will be

able greatly to expedite and complete this great and good work, if it is founded upon reasons and facts which will obtain the approval, and command the sympathy, of that public opinion which is the ultimate and supreme power in the Republic. Nothing is so likely to bring speedy "comfort and relief" to the insane confined in county almshouses as a full recognition of the wide contrast between their miserable condition and what might be their comparative happiness in well-ordered asylums; and the best direction of the "determined effort" promised by the medical superintendents will certainly be towards the realization of this contrast in the knowledge and opinion of the general public.

But, unless I am much mistaken, the superintendents of asylums in America have a heavy task before them, which will indeed require a determined effort before they can say that they possess the confidence of the public in the same degree to which of late years it has been extended in England to the management of our county asylums and hospitals for the insane. With us, the management of our asylums is open and patent. Abuses occur, as they will occur everywhere; but they are remedied, and if need be punished, in the most public manner, and the records of them are displayed to the eyes of the world. It is thus that the American journals, in reply to *The Lancet's* leading articles on the American Asylums, have been able to cite so many instances of disaster in our asylum work. But where shall we look for any record of wrong-doing or misfortune which, in the nature of things, must take place in American asylums also? So far as I know, it does not exist. There is in America no central authority to prosecute and punish such wrong, and no public record of circumstance to lament and avoid.

Putting altogether out of consideration opinions and sentiments which were expressed to me privately, few things struck me more forcibly in America than the painful sensibility to public opinion which was manifested both at the conclave of medical superintendents which I had the great pleasure to attend, and in the published transactions of that held last year. I think I may truly say that nothing of the kind exists with us, and few things would surprise me more than to hear a debate at one of the annual meetings of the Medico-Psychological Association upon the necessity of preventing or curtailing the transmission of the letters of patients in asylums either to their friends or to public authorities, or a discussion in which it was maintained that the absence on leave or the discharge of uncured patients was undesirable on account of the

accusations and complaints which such persons were liable to make about their treatment; and as a final instance of this difference of feeling I may mention that *The Lancet* Commission, which will be generally welcome to English asylums in proportion to its ability and thorough faithfulness, has been deprecated in the AMERICAN JOURNAL OF INSANITY as "an insult to the Commissioners in Lunacy, and the medical staff of every English hospital."

Pondering these things, and many others with which I should not be justified in occupying space, I have been able to come to no other conclusion than that the great stumbling block of the American superintendents is their most unfortunate and unhappy resistance to the abolition of mechanical restraint. I was told everywhere, except at Utica, that this question was settled in America, and that it would be useless and futile to re-open it. I was informed that, after many minor discussions, a great and final discussion of the whole question had taken place in 1874 at Nashville, and that the superintendents had there unanimously decided that the abolition of mechanical restraint was utterly impracticable; and that the statements of the English on the subject were not to be relied upon. I was again and again informed that the system of non-restraint had proved quite a failure in England, and that we were rapidly returning to the old practices. As such statements were not very agreeable to me, and especially as I found that my contradiction could be met by the published opinions of some two or three English superintendents who, although no prophets in their own country, are eagerly quoted abroad, I resorted to the somewhat vulgar expedient of offering a bet as an expression, or, if you will, a *meter*, of my belief. Faraday tells us (Lecture on Mental Education,) that Dr. Wollaston once did the same thing to him, on which "I rather impertinently quoted Butler's well-known lines about the kind of persons who used wagers for argument, and he gently explained to me that he considered such a wager not as a thoughtless thing, but as an expression of the amount of belief in the mind of the person offering it."

With such an illustrious example, I may be permitted to think that my offer of a wager also was not "a thoughtless thing," and it certainly was not considered a rash one, for although I repeated it both privately and before many superintendents at Auburn, it was not accepted, and it certainly stopped the talk about our relapse. My offer was a wager of one hundred pounds that any American superintendent should go to England and should have free access to all public asylums there, and that in a search of one month he

would not be able to find one patient therein in any form of mechanical restraint.

I have before me a full report of the great discussion above referred to, but the subject is so threadbare, in the pages of *The Lancet*, wherein the great battle was fought in ancient times, that I shall only venture upon a few brief extracts and remarks. The termination, however, of the discussion is so astounding and instructive, that I really must entreat *The Lancet* to find space for it.

“Dr. Walker, of the Boston Asylum, vice president of the Association, acting as president in the absence of Dr. Nichols, said: I was gratified when visiting the institutions in England—the few I did visit—to find that almost universally (certainly in four-fifths of the cases) the superintendents expressed themselves in favor of mechanical restraint, and singularly enough, the superintendents lay the blame of non-restraint upon the Commissioners in Lunacy, and the Commissioners in Lunacy throw it back upon the superintendents. They say the superintendents are emulous one of another to report the smallest number of restraints during the year. Certainly in my presence and that of an American medical friend accompanying me, almost without exception they expressed their preference for mechanical restraint, and hoped they would have it established there. From an experience of over twenty years, and from a careful and, I hope, by no means superficial study of this question, I firmly believe that in the future the practice of our best American asylums now *will become the governing rule of Christendom*. Dr. Rodman: Did you visit Conolly’s asylum? The President: I did. Dr. Rodman: What is the practice now? The President: That was the only hospital that I visited where I found any difference at all as to mechanical restraint. There they were using, so far as I observed, the attendant’s hands and the closed room. Dr. Rodman: If the change begins there, and ends there, it certainly must be apparent to every member of this Association that the days of non-restraint have died out. The President: They told me that the adoption of non-restraint was not due to Dr. Conolly at all, but through the superintendent of the female department, a modest and retiring man, who attempted to abolish mechanical restraint, and succeeded. Seeing the result in his hands, Dr. Conolly adopted it and became its champion and high priest. Dr. Rodman: Dr. Conolly has the credit as the apostle of non-restraint. The President: Not only the apostle of non-restraint, but the apostle of humanity too.”

I must resist the strong temptation to treat the above in the manner it invites, yet how to treat it seriously I scarcely know. Yet it is a most serious matter, and reveals the true foundation of the American prejudice—namely, profound ignorance of what has really been done, and is yet doing, in this country.

Among all the medical men connected with asylums and the treatment of insanity whom I met with in the States, amounting to nearly a hundred, I only met with two who mentioned to me that they had visited our asylums, and had really studied our system, and both of them were ardent admirers of it. The first of these was Dr. Edward Jarvis, the well-recognized head of his profession, but, alas, now a head enfeebled by age and infirmity. This most able man urged me to travel the States on a mission of reform, which, unfortunately, my own health rendered me quite incapable of doing. The other person was the senior assistant physician to the McLean Hospital for the Insane, whose name I forget, but who, while earnestly studying the treatment of the insane in England, lost his promotion in America. He also had become a thorough convert to our opinions and practice, which I truly hope will not prejudice him in the eyes of his professional brethren.

And here I may very fairly ask why the leaders of medical opinion in America do not come to this country, and really study this most important question fully and conscientiously? The result would not be doubtful. The leading men of mental medicine in France and Germany did so, and were convinced. The illustrious Griesinger has told us in noble words how his adverse opinions were changed to joyful astonishment by personal observation of the working of the non-restraint system from one end of England to the other, and that objections to the system proceed entirely from those who have not either practiced it, or seen it in practice.* Westphal, the eminent successor of this greatest of modern alienists, perhaps never stood in the position to be converted; no more staunch upholder of the system, however, exists. Morel, of Rouen, also one of the very ablest of the Frenchmen in our specialty, was an enthusiastic convert, and the Americans will do well to peruse his book on the subject, and to compare the faithful observations and earnest thought of a great mind with the above facile remarks of their President, with which they can scarcely be satisfied.

* *Pathologie und Therapie*, pp. 506-8; Zweite Auflage.

But I must not further delay to endeavor to make it apparent whereabouts the Americans are in their opinions and practices.

The discussion at Nashville was mooted upon an able paper by Dr. Ranney, and it was concluded by the President declaring that the members of the Association were "essentially a *unit* upon the question as presented by Dr. Ranney." This, however, was not quite correct, for an Abdiel was found in Dr. Lett, of Canada, who boldly declared, "So far as my experience goes, I think this is simply a question between good attendants and restraint." Dr. Worthington also came very near to rebellion against the law of the majority, when he asserted that in his asylum, the Friends' Asylum, at Philadelphia, "since the use of mechanical restraints has been almost entirely discontinued, there has been far less trouble in the management of the patients." The unanimous opinion of the remaining members of the Association, seems to be expressed in the following words of Dr. Smith, Superintendent of the State Asylum, Missouri. "This question has been very freely discussed at previous meetings of this Association, and the result was almost entire uniformity of sentiment in all well-conducted American institutions for the insane. No restraint is the general rule, and restraint the exception; while for many years past the tendency in this country has evidently been to reach the point of least possible restraint, *there have been very few, if any, converts to the non-restraint system in the true sense of the term.*"

This being the position taken, I shall endeavor to show by their own declarations what the superintendents of the State asylums consider the least possible amount of restraint, and the description of cases in which they think themselves justified in employing it.

Dr. Orpheus Everts, of the Indiana Hospital for the Insane, said: "I think we are all agreed; but the question seems to be how much and what kind of restraint is required? I know of no other object in sending these persons to an insane hospital, than that of proper restraint. * * When I assumed charge of the Indiana Hospital I found perhaps *fifteen per cent.* of the patients wearing some kind of mechanical restraint. I have reduced the ratio to not far from *two per cent.* *Below that I find it impracticable to go.*" Dr. Green, of the Georgia State Asylum, said: "I do not think that all the restraints we employ amount to two per cent. per annum with our five hundred and sixty patients. I certainly concur in the positive and absolute necessity of personal restraint." Dr. Green said that he applies mechanical restraint to four different classes of patients—namely, (1) to suicidal patients, (2) to "persons

who will not remain in bed," (3) "to persons who persistently denude themselves of all clothing," and lastly (4) "to the inveterate masturbator." Dr. Ranney, after mentioning that Dr. Bell had reduced restraints in the McLean Asylum to less than one per cent. so long ago as 1839, said: "Have we not sometimes fallen below it on a plea of economy, or through a willingness to shirk the unceasing, patient, and thoughtful attention a large number of patients in hospital need, and thus brought upon ourselves and the institutions under our care, the odium and the pernicious legislation that seem to have sprung out of, or at least to have closely followed, some sharp criticisms in recent publications, and the acrimonious utterances of intense humanitarians, or persons whose mental integrity is at least questionable? And to just such results shall we be ever in danger so long as restraint may be deemed necessary, unless with unceasing vigilance we guard against the abuses which with its use are liable to creep in." A very remarkable passage this, as reasonable as it is forcible and eloquent. Dr. Ranney thinks that mechanical restraint is "a valuable, if not indispensable, auxiliary in the treatment," (1) of "cases of acute mania, characterized by violent, destructive and mischievous propensities;" (2) in "patients who wound themselves, creating ulcers that would never heal themselves, unless their hands were confined;" (3) "it is the only safe course in guarding against the violence to which the epileptic insane are often liable;" (4) "persons whose feelings are greatly perverted—exceedingly irascible—prone to see insults, or evidence of conspiracy—are sometimes little less ferocious than wild beasts, and feel little or no regard for human life * * * for them seclusion or restraint, for varying periods, seems to be necessary, and, for a small portion of this class, *almost continuous*;" (5) "how shall we treat that so frequently fatal disease, acute delirious mania, if we do not apply restraint to secure recumbency?" It will be observed that none of the five classes enumerated by Dr. Ranney as requiring restraint tally with those of Dr. Everts, so that already we have nine classes of lunatics who need mechanical restraint, in America. Dr. Slusser, of the Ohio Hospital for the Insane, adds to the number. "I have met with a class requiring restraint not alluded to by the writer, Dr. Ranney. I refer to those who persistently walk or stand, until their extremities become swollen, and they give evident signs of physical prostration. I have no way of controlling such, but by tying them down on a seat. If there is any less objectionable mode, I should like to know it. Then we have a class of noisy patients

harmless in every other respect, but so loquacious and boisterous that they disturb the whole ward." With this climax we might well conclude this astounding classification, did not other superintendents, in their remarks afford us the means of adding to it: for instance, patients needing forced alimentation, (Dr. Curwen,) patients who butt their heads against the wall, (Dr. Forbes and Dr. Kilbourne,) and delusional cases, who are quiet, then suddenly rise up and make a violent attack upon somebody, (Dr. Carriel,)—*fourteen classes of the insane altogether who absolutely need mechanical restraint in the State Asylums of America*, according to the opinions and practice of their medical superintendents. It would be interesting to know how many classes of the insane our American brethren can reckon who do not require this indispensable means of treatment.

It would be tedious and useless to discuss the need in all these classes with the intention of showing by what means in England patients included in them would be treated, without the use of strait-waistcoats, muffs, camisoles, or the locked chairs: are they not written in the pages of *The Lancet*, in the days of the last generation? I shall, however, as an example, take the remarks made upon one class—namely, those patients who denude themselves or destroy their clothing—to indicate the lack of resource, which is one cause of all this employment of restraint. We know, by long and large experience, how easy it is to allow a lunatic perfect freedom of all muscular movement, and yet to prevent him from stripping himself, or from destroying his clothing, by the employment of outer clothes so fashioned that he cannot remove them, and so strong that he can not easily destroy them. This, with some care on the part of the attendants, is a perfect and facile remedy. Yet Dr. Curwen says: "When patients are obstinately bent on destroying their own clothing or that of others, it is safest and best to confine their hands." Dr. Eastman says: "At the Worcester Hospital there are a large number of chronic cases, who are very destructive and prone to denude themselves, and I am obliged to use a good deal of restraint on these accounts." Dr. Shew says: "I think we have all these cases—a persistent desire to destroy clothing particularly. No harm can come from restraint in either of these cases if properly used, but, on the contrary, much good may be done." Dr. Carriel says: "Then there is a class that denude themselves and tear their clothing, when restraint or seclusion becomes necessary." Dr. Green says: "In the case of persons who persistently denude themselves of all clothing, I think it

better to put them under restraint than to keep them in their rooms, and accordingly I restrain also that class of patients."

May we not ask, where is the wonderful ingenuity and inventive resource of the country if its skilled physicians allow themselves to be so easily defeated by the caprice of madmen who are so readily managed elsewhere? And so we might go through all the classes, were it worth while to repeat a thrice-told tale, and were not the great book of practical exposition worth infinitely more than all which language can convey—a book held open in this country from end to end, with men of large experience and skill, eagerly desirous to turn its pages to every earnest student, and in no spirit of arrogance or self-sufficiency, but in the truest desire to show a straighter path and a higher aim in a great department of the great art and science of healing.

Is it surprising that, at the present time, the management of asylums for the insane in America is the subject of mistrust with the people? The Americans, who are about the best informed, most inquisitive, and widely traveled people in the world, are not likely to be ignorant of the treatment of the insane in other countries, nor to be satisfied with the assurances of an official class that the most enlightened and advanced system of treatment is inapplicable in their own country. The result is a state of public feeling which is well expressed in the quotation which I have already made from the paper of Dr. Ranney, and which was repeatedly recognized by many speakers in the debate. Flowery words break no bonds; and such highfaluting assertions as that "in any comparison of the treatment of the insane in different countries we can but look with pride upon the advanced humanity of our own," must have been felt by Dr. Ranney somewhat insincere when he uttered it just after the avowal that "the use of mechanical restraint has divided professional opinion in this country, and has deeply stirred public sentiment from time to time, and perhaps has been the cause of much of the popular odium that has been cast upon hospitals for the insane and their directors in some quarters." Sooner or later he and Dr. Curwen will find that the public demand for the abolition of mechanical restraint is no "hue-and-ery of a sensational character," nor "a strong public opinion based more upon feeling than upon knowledge." The Americans are not a people to whom this taunt is like to apply justly for any length of time, even if it be partially true at the present time, which the successful resistance of the superintendents would seem to make probable. When full knowledge comes either to the

latter or to the public, they will have to vacate this untenable position.

At the meeting of superintendents held in 1875 the discontent and distrust of the public with the management of the American asylums were still more emphatically expressed. The debate was upon a project of law, proposed by a Mrs. Packard, that locked letter-boxes, under the control of the Post Office, should be placed in each asylum ward. This law, going so far beyond our own (25 and 26 Viet., cap. iii., sec. 49.) which works perfectly well, would no doubt be most objectionable; but the reasons given by the superintendents for opposing it manifest the deep mistrust of which they are conscious. One asserted: "It seems to me an unquestionable fact that during the last few years American institutions for the insane have been, and perhaps still are, on trial before an alarmed and prejudiced public." Another, and no less an authority than Dr. Isaac Ray, forgetful of the difference between a sane and free man suffering from sickness in his own house and a lunatic incarcerated in an asylum, lays down the following proposition against the establishment of a central authority: "If the time shall ever come when the Legislature, in its zeal for the public good, shall establish a board of officers to supervise the medical practice of the State, with power to enter every sick man's chamber, to inquire respecting the medicine and diet prescribed and any other matter connected with his welfare, and report the results of their examination to the constituted authorities, then it may be proper to consider the propriety of extending the same kind of paternal visitation to the hospitals for the insane." Dr. Ray thinks that the free and independent action now possessed by the officers of asylums ought not to be disturbed by the intrusive element of official visitation. We do not find in England that the free and independent action of our superintendents of asylums is much disturbed by the visitation of the Commissioners in Lunacy, but we do enjoy the advantage thereby that no one shall greatly lag behind the knowledge and science of his time in the treatment of his patients without his shortcomings being investigated and published, and the great additional advantage that the general management of our asylums possesses the full confidence of the public.

With regard to the constantly repeated proposition of American superintendents, that they maintain and defend the use, but not the abuse, of mechanical restraints, I have only to remark that the use of such restraint must always be an abuse whenever and

wherever it may be avoided or substituted by a more skillful mode of treatment, inflicting less suffering upon the patients; and that, at the present day, the extent to which this can be effected is not a matter which the Americans must be left to discover for the first time from their own experience, since a very moderate amount of honest investigation in this country and on the continent must convince any candid mind that the proportion of lunatics on whom restraint can not be so avoided is extremely small.

Our American brethren tell us, indeed, that there is some wonderful peculiarity in the American character, which distinguishes it from that of the parent race in the old country in preferring the restraint of instrumental bonds to that of moral influence. President Dr. Walker assured his hearers that this was so. He said: "I suppose if anything has been settled to the satisfaction of the members of this Association it is that, in this country, our patients, by *original temperament*, or by some inherent quality in the *universal Yankee*, will not submit to the control of any person they consider their equal or inferior as readily as to that of mechanical appliances." Dr. Compton also said: "I think an asylum can not be found in this country, where the first thing a boy learns to read is the Declaration of Independence, and where every youngster learns that he is 'in the land of the free and the home of the brave,' in which restraint will not be found necessary." I shall only remark that the same argument was in the early days of this debate used by the physicians of Germany, as Griesinger states with unsuppressed contempt. And even in Scotland it was said that the *perferendum ingenium* of its people made many of the insane there only capable of being treated like wild animals.

With regard to the English, I may observe that the non-restraint system has been practically found to be well adapted to the treatment of the insane of the upper classes, who are as free from imputation of servility and submission to beardedness as the glorified citizens of America can themselves be.

It can, however, scarcely be doubted by those who know even a little of America that the "inherent quality" attributed to the "universal Yankee" of peculiar resistance to moral influences and rebellion against kindly and sympathizing treatment is an unjust and unfounded libel upon him. The average American, of the agricultural, artisan and laboring classes, may possibly hold himself somewhat more stiffly on his manhood and citizenship than the subject of Queen Victoria of equivalent estate, though we somewhat doubt the fact; but without doubt he is, as a rule, more

instructed, intelligent, and self-respecting. Any Englishman who has mixed in American mobs, as I have done, will have been astonished and somewhat humiliated at the absence of the "rough" element in them, at the self-respect, regard for the rights of others, and, above all, at the sobriety which he has witnessed. And if he has taken the trouble to inquire, he will find that the dirtiest and poorest-looking man he has encountered has received what we should consider almost a liberal education. If he looks through the police reports he will be struck with the absence of those brutal assaults upon women and children and feeble persons which are the present reproach of our most imperfect civilization. If he has had the privilege of knowing many Americans at their own hearths, or perhaps I should say stoves, he will have become convinced that the influence of politics, *societies*, and climate, have resulted in the production of a most kindly, friendly, and orderly variety of the Anglo-Saxon race, full of domestic affections and social sympathies, peculiarly liable to be led by moral and reasonable guidance. And these are the men for whom the American physicians declare that bonds of hemp and iron are absolutely indispensable in the treatment of their mental maladies, while for the rough Englishman, the *dour* Scot, and the *hartuackig* German, they have been proved to be both superfluous and mischievous!

I should hesitate to declare that all races were equally fit for the non-restraint system, and perhaps a house full of maniacal Malays or Kaffirs would be troublesome to manage by moral and reasonable methods. The essence of non-restraint system is to lead the lunatic by such remains of mental power and coherence as the physician can lay hold upon, and where there has been least mind, there would be the slightest means of moral guidance; but to make the men of the United States an exception because they, more than others, have learned how to rule themselves, is a blundering censure upon their culture and their virtues.

Moreover, if American patients are independent, ingenious, and bold, and therefore not easily guided and controlled, are not the physicians Americans also, and being possessed of the qualities of their race, do they not stand in the same relation to their patients as the physician of other countries to their insane countrymen? Do they not possess the same advantages of courage, culture, and experience, and above all, that of a sound mind in a sound body, which qualifies them to undertake the care and treatment of their compatriots who are bowed down by mental infirmity and frequent physical disease? Verily we believe that this spread-eagle apol-

ogy for the bonds of freemen is the most feeble, futile, and fallacious which could possibly be imagined. Another, however, which is worse, I shall leave unanswered, because it does not seem worthy of an answer. It is this, that because in the treatment of insanity certain remedies are useful, and are, so to say, a restraint upon abnormal changes in the organism, therefore the restraint of locked chairs and strait-waistcoats is justified. When such an argument is used, as it was by Dr. Hughes, of St. Louis, the quiver of the logician must be about empty.

Finally, I must make an apology myself for the uncompromising manner in which I have criticised the utterances and opinions of my professional brethren in this matter. I am seriously afraid that it will cost me some good will in quarters where I most earnestly desire to retain it, and if this were not a question of the highest principle with me, on which I should not hesitate to sacrifice, if need be, the most cherished friendship, I would most willingly have been silent, or have spoken with bated breath. But that the American nation, whom I have learnt to know only to respect and love, should remain under the incubus of this professional prejudice; that the American superintendents, among whom I count some of my dearest friends, should lag lamentably behind the science of their age; that the greatest reform in the treatment of mental disease, inaugurated by and among Anglo-Saxons, should be bounded by national barriers, and denied to the largest community of the Anglo-Saxon race, this I could not sit down with a quiet conscience silently to think upon. Far be it from me to dogmatise my psychiatric colleagues in the United States; but I may be permitted earnestly to entreat them to take a wide and general view of their position in their own social surroundings, and in the wide world of science. My fervent hope for them is that by doing so they will decide to cast behind them a narrow prejudice, and thus be able to reinstate themselves in the front ranks of practical philanthropy, and the confidence of their compatriots. They are men, as I most willingly testify, animated by the highest motives of humanity, but ignorant and mistaken in their application of means to the furtherance of that great end to which we all press forward—namely, to the care and cure of the insane with the least amount of suffering. That they will do this without much delay I very confidently predict; that they will sink five fathoms deep their bonds of hemp and iron; and bring “medicine to a mind diseased” only in the shape of medical and mental influence; that they will jealously guard the enjoyment of all

innocent freedom for their patients, and all possible publicity in the management of their institutions, I feel as sure as that they and their countrymen are destined in the ages to be our own great rivals in the race of social and scientific progress in this and in all other matters. In a few years they will look back upon their utterances in defence of mechanical restraint with the same wonderment with which they may now regard all that has been said in defence of domestic slavery, but with no wounding recollections of war and conflict, and then they will forgive me or my memory for that I have written the above words which may perchance have hastened this happy change.

PROCEEDINGS OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS.

The Thirtieth annual meeting of the Association was held at the Continental Hotel, in the City of Philadelphia, commencing at 10 A. M., of June 13, 1876.

The meeting was called to order by the Vice President, Dr. Clement A. Walker.

Gentlemen of the Association. In the unexpected absence of our good President, Dr. Nichols, it once more becomes my unwilling duty to call the meeting to order, and to invite your participation in the business before the Association. It is hoped, before the day is passed, Dr. Nichols will be here in his accustomed place, until then, however, the business of the Association must go on as usual, and without any preliminaries whatever, I will call upon the Secretary to read the minutes of the last meeting.

The Secretary then read the proceedings of the last meeting.

The following members were present during the sessions of the Association.

Dr. Wm. M. Aul, Columbus, O.

Dr. R. F. Baldwin, Western Lunatic Asylum, Staunton, Va.

Dr. J. W. Barstow, Sanford Hall, Flushing, N. Y.

Dr. W. Black, Eastern Lunatic Asylum, Williamsburg, Va.

Dr. James A. Blanchard, Kings County Lunatic Asylum, Flatbush, N. Y.

Dr. D. J. Boughton, Hospital for the Insane, Mendota, Wis.

Dr. D. Tilden Brown, Bloomingdale Asylum, Manhattanville, New York.

Dr. Henry W. Buel, Spring Hill Institution, Litchfield, Conn.

Dr. W. H. Bunker, Longview Asylum, Carthage, O.

Dr. John S. Butler, Hartford, Conn.

Dr. H. A. Buttolph, State Lunatic Asylum, Morristown, N. J.

Dr. R. C. Cabell, Jr., Assistant Physician, Central Lunatic Asylum, Richmond, Va.

Dr. John H. Callender, Hospital for the Insane, Nashville, Tenn.

Dr. T. B. Camden, Hospital for the Insane, Weston, W. Va.

Dr. H. F. Carriel, Hospital for the Insane, Jacksonville, Ill.

Dr. George C. Catlett, Lunatic Asylum No. 2, St. Josephs, Mo.

Dr. John B. Chapin, Willard Asylum for the Insane, Willard, New York.

Dr. R. C. Chenault, Eastern Lunatic Asylum, Lexington, Ky.

Dr. W. S. Chipley, Cincinnati Sanitarium, College Hill, O.

Dr. Daniel Clark, Asylum for the Insane, Toronto, Ont.

Dr. Wm. M. Compton, Lunatic Asylum, Jackson, Miss.

Dr. John Curwen, Pennsylvania State Lunatic Hospital, Harrisburg, Penn.

Dr. James H. Denny, New York.

Dr. J. F. Ensor, Asylum for the Insane, Columbia, S. C.

Dr. Orpheus Everts, Hospital for the Insane, Indianapolis, Ind.

Dr. C. C. Forbes, Central Kentucky Lunatic Asylum, Anchorage, Kentucky.

Dr. F. G. Fuller, Hospital for the Insane, Lincoln, Neb.

Dr. John P. Gray, State Lunatic Asylum, Utica, N. Y.

Dr. Thomas F. Green, State Lunatic Asylum, Milledgeville, Ga.

Dr. Eugene Grissom, Insane Asylum, Raleigh, N. C.

Dr. Richard Gundry, Hospital for the Insane, Athens, O.

Dr. Henry M. Harlow, Hospital for the Insane, Augusta, Me.

Dr. J. Welch Jones, Lunatic Asylum, Jackson, La.

Dr. Walter Kempster, Hospital for the Insane, Oshkosh, Wis.

Dr. Edwin A. Kilbourne, Hospital for the Insane, Elgin, Ill.

Dr. Thomas S. Kirkbride, Pennsylvania Hospital for the Insane, Philadelphia, Penn.

Dr. L. R. Landtear, Hospital for the Insane, Dayton, O.

Dr. A. E. Macdonald, City Asylum for the Insane, Ward's Island, N. Y.

Dr. C. F. MacDonald, State Lunatic Asylum for Insane Criminals, Auburn, N. Y.

Dr. Edward Mead, Boston, Mass.

Dr. F. W. Mercer, Assistant Physician, Hospital for the Insane, Anna, Illinois.

Dr. Charles H. Nichols, Government Hospital for the Insane, Washington, D. C.

Dr. R. L. Parsons, City Lunatic Asylum, Blackwell's Island, New York.

Dr. Mark Ranney, Hospital for the Insane, Mt. Pleasant, Ia.

Dr. Isaac Ray, Philadelphia, Penn.

Dr. A. Reynolds, Hospital for the Insane, Independence, Ia.

Dr. D. D. Richardson, Department for the Insane, Almshouse, Philadelphia.

Dr. John W. Sawyer, Butler Hospital, Providence, R. I.

Dr. S. S. Schultz, State Hospital for the Insane, Danville, Penn.

Dr. A. M. Shew, Hospital for the Insane, Middletown, Conn.

Dr. T. R. H. Smith, Lunatic Asylum No. 1, Fulton, Mo.

Dr. Henry P. Stearns, Retreat for the Insane, Hartford, Conn.

Dr. J. T. Steeves, Provincial Lunatic Asylum, St. John, N. B.

Dr. Clement A. Walker, Lunatic Hospital, Boston, Mass.

Dr. D. R. Wallace, Hospital for the Insane, Austin, Texas.

Dr. J. H. Worthington, Friend's Asylum for the Insane, Frankford, Philadelphia, Penn.

The following gentlemen were present by invitation.

Dr. P. O. Hooper, Little Rock, Ark.

Mr. D. A. Ogden and Dr. W. A. Swaby, Trustees of the Willard Asylum for the Insane, Willard, N. Y.

Rev. A. H. Kerr and Heaman Talbot, Commissioners of the State Hospital for the Insane, St. Peter, Minn.

Mr. John Sunderland, Superintendent of Construction of State Hospital for the Insane, Warren, Penn.

Mr. Whetstone, President of the Board of Trustees of Cincinnati Sanitarium.

Mr. John W. Chase, Trustee of the Maine Hospital for the Insane, Augusta.

Dr. D. H. Kitchen, New York.

Hon. J. W. Langmuir, Inspector of the Hospitals and Prisons of the Province of Ontario.

Dr. T. S. Sumner, New York.

Francis Wells Esq., of the Board of Public Charities of Pennsylvania.

Rev. F. H. Wines, Secretary of the Board of Public Charities of Illinois.

Letters were read by the Secretary from Drs. DeWolf, Jelly, Barnes, Landor, Draper, Eastman and Jarvis, regretting their inability to attend this meeting.

Dr. KIRKBRIDE. Mr. President, before proceeding to the regular business of the Association, I beg leave on behalf of the Managers of the Institution with which I am connected, the medical

profession and the citizens of Philadelphia, to tender to you a cordial welcome to the "City of Brotherly Love." Philadelphia, as you all know, has a peculiar interest for this Association. It was in 1844, nearly thirty-two years ago, that it was formed here, when its first meeting was held in Jones' Hotel, on Chestnut Street, below Seventh Street, by the thirteen superintendents who were its original members. Two of these still remain in active service. All the others have died or retired from hospital duties, and I am sure, we may say of these latter, that their names will be honored in all future time. Of the Association itself, it is safe to declare, that by its thirty meetings, its full discussions of nearly every subject connected with insanity, its visits to institutions, and by other influences, it has done more, during the period of its existence, to promote the best interests of the insane than all other causes combined. Its carefully matured declarations have been recognized as authority, by legislative bodies, building commissions, boards of management, and others taking a special interest in the insane, both at home and abroad. Without detaining you longer, I trust I shall be pardoned for expressing, in a few words, my regrets which I feel are participated by all of you, at the absence of our honored President, Dr. Nichols, of the Government Hospital for the Insane at Washington. As is well known to you all, he has been for the last three months, and now is, under the harrow of "investigation by a congressional committee," but I am proud to say, that thus far, and I feel it will be so in the future, he has come out of that investigation, without one bruise or scratch, or without one particle of that filthy mud which has been so persistently thrown, adhering to him. It is sad to know that such uncalled for proceedings can be carried out against a man, who has been an honor to his profession, and whose course has met with our unqualified approbation. I am sure that those who have known Dr. Nichols, as I have, intimately, for more than a quarter of a century, who have been in the habit of visiting his institution, at frequent intervals, who have watched, as I have, his faithful work in the interests of the Government, will unite with me in declaring that the Government has had no more faithful officer, no asylum a more humane superintendent, the insane no better friend, (applause.) I am quite sure that circumstances that have occurred within twenty-four hours have prevented Dr. Nichols from being with us at our first meeting. Once more I tender you a cordial welcome to Philadelphia.

Before proceeding to other business, I may state that I have been requested by Dr. Chapin, of the Willard Asylum for the In-

sane, to state that he has been recalled from Philadelphia, by the melancholy intelligence of the unexpected death of his friend, our colleague, Dr. George Cook, of the Institution at Canandaigua, New York, who was stabbed by a patient under his care yesterday morning. No further information has been received in regard to this melancholy event, but we may expect to hear from Dr. Chapin, to-morrow.

I would move that a committee be appointed to take proper notice of the death of Dr. Cook, and that Dr. Chapin, who has been so long associated with him, be made its chairman.

The motion was agreed to.

The President appointed as the other members of the Committee, Drs. Brown and A. E. Macdonald.

On motion of Dr. Chenault it was resolved that a committee be appointed to prepare a notice of Dr. Geo. Syng Bryant, of Lexington, Kentucky.

The committee appointed consisted of Drs. Chenault, Callender and Compton.

On motion of Dr. Kirkbride, it was resolved that the President appoint the usual Standing Committees.

The Chair appointed on the Committee on Business, Drs. Kirkbride, Grissom and Curwen.

Dr. Compton introduced to the Association, Dr. P. O. Hooper, of Little Rock, Arkansas. Dr. Gray introduced Mr. D. A. Ogden and Dr. W. A. Swaby, trustees of the Willard Asylum for the Insane, Willard, New York.

Dr. Kirkbride, on behalf of the Managers of the Pennsylvania Hospital, offered the Association the use of their library room for the meetings of the Association in case the room now occupied should not prove satisfactory. Dr. Kirkbride also invited the Association to spend Thursday at the Pennsylvania Hospital for the Insane, the morning at the Department for Males, and the afternoon at the Department for Females, and the evening socially at his residence.

Dr. Worthington invited the Association to visit the Friend's Asylum for the Insane on Friday.

Dr. Richardson invited the Association to visit the Department for the Insane of the Philadelphia Almshouse.

These invitations were accepted and referred to the Committee on Business.

Dr. C. F. MacDonald moved the appointment of a committee to prepare a notice of the death of Dr. James W. Wilkie, which was agreed to, and Drs. C. F. MacDonald, J. B. Chapin and A. M. Shew, were appointed said Committee.

On motion the Association took a recess for fifteen minutes.

On reassembling, Dr. Curwen introduced to the Association, Rev. A. H. Kerr and Mr. H. Talbot, Commissioners of the State Hospital for the Insane, St. Peter, Minnesota, and Mr. John Sunderland, Superintendent of Construction of the State Hospital for the Insane, at Warren, Pennsylvania.

Dr. Chipley introduced Mr. Whetstone, President of the Board of Trustees of the Cincinnati Sanitarium.

Dr. Harlow introduced Mr. John W. Chase, Trustee of the Hospital for the Insane, Augusta, Maine, and these gentlemen were invited to take seats with the Association.

The President announced the appointment of the Standing Committees as follows :

To Audit the Treasurer's Account : Drs. Worthington, Carriel and Wallace.

On Time and Place of Next Meeting : Drs. Ray, T. R. H. Smith, and Baldwin.

On Resolutions, &c. : Drs. Chipley, A. E. Macdonald and Green.

The Committee on Business made the following report which was adopted.

The Committee on Business respectfully recommend that the Association continue in session until 2 P. M., this afternoon. Meet at 10 A. M., of Wednesday, and remain in session until 2 P. M. Visit the Department for the Insane of the Philadelphia Almshouse in the afternoon, and hold a session at 8 P. M., to hear a paper by Dr. Ray. On Thursday, meet for session at the Department for Males of the Pennsylvania Hospital for the Insane at 10 A. M., lunch there at 2 P. M., and visit the Department for Females in the afternoon, and spend the evening sociably at the residence of Dr. Kirkbride. On Friday, visit the Friend's Asylum and hold a session there at 11 A. M. On Saturday, meet at 10 A. M., for final business. Ladies with members or visitors will be expected to accompany them. Conveyances will leave the Continental Hotel at 9 A. M., on Thursday for the Pennsylvania Hospital for the Insane, and will bring the members back in the evening. The arrangements for going to the Friend's Asylum will be announced in due time. The papers which are expected to be read will be announced in due time.

On motion of Dr. Curwen it was resolved that a committee of three be appointed to prepare a list of members, twenty in number, to represent this Association, at the International Medical Congress, to meet in Philadelphia, on September 4, 1876.

The chair appointed on said committee, Drs. Curwen, Kilbourne and Denny.

DR. KIRKBRIDE. I ought to say, on behalf of the Committee on Business, that the arrangements that have been proposed have a particular reference to the Centennial Exhibition, it being believed that members would like to devote a portion of their time in visits to the Exposition. Without making any positive arrangements we have been disposed to allow them to use their own pleasure, and take as much of this afternoon and evening for that purpose as they see proper.

DR. KIRKBRIDE. At the last meeting of the Association, a committee was appointed to take some notice of our late friend and distinguished colleague, Dr. Stribling, of Virginia. You may remember that an admirable notice of his life and service was read by a gentleman from that State, Dr. Baldwin, and which seemed to go over the whole ground so thoroughly that the committee

have not thought it necessary to do more than offer a few resolutions which I will now read to you.

Resolved, That this Association desires to place on record its high appreciation of the eminent professional and social character of their lamented colleague, the late Francis T. Stribling, for more than thirty years, the able Superintendent of the Western Lunatic Asylum of Virginia, and the great value of his services in that and various other prominent positions, with which his fellow-citizens honored him.

Resolved, That during his long connection with the care of the insane, he manifested an unflinching devotion to their best interests, and a most liberal appreciation of the duties which every State owes to its afflicted citizens, which conjoined with a steady and courageous advocacy of whatever he deemed right, secured for him in a remarkable degree, the highest confidence of his fellow men and of the governing authorities of his native commonwealth.

Resolved, That as one of the founders of this Association, he is entitled to our grateful remembrance, for he always felt the highest interest in its proceedings, and was ever the zealous advocate of the most humane and enlightened mode of providing for the insane.

Resolved, That distinguished as was his career as a hospital superintendent and as a psychological student; it was in his private life, in the sanctity of home, and in social intercourse that those who had the privilege of his acquaintance, learned most surely to love and esteem him and honor him for his noble traits of character.

Resolved, That these resolutions be entered on the minutes of the Association, and the secretary be directed to forward a copy of the same to his family, as a feeble tribute to the memory of their late associate, and some evidence of the high esteem in which the name of Francis T. Stribling will ever be held by its members.

THE CHAIR. It has been the custom of this Association to spend the early hours of our meeting in listening to reports on the progress made in the treatment and care of the insane throughout the country. Recognizing that Maine is the first on the list, I call on Dr. Harlow for a report in regard to the state of affairs in Maine.

DR. HARLOW. I have but little to report in regard to the cause of the insane in the State I represent. I am pleased to say that we have at our Institution tried to keep pace with the improvements of the age, touching the care of this unfortunate class. The

treatment continues essentially the same as that recognized at other similar institutions. We have endeavored to do away as much as possible with mechanical restraint, but we do not abandon it altogether, as it is alleged to be done by some of our brethren across the water. We use the leather belt and wristers, and the camisole when deemed advisable. Last year we erected a new building in which we have a chapel or amusement hall, a kitchen and other apartments. The chapel and amusement hall we have found quite an advantage in the treatment of the patients. It affords the means of comfort and recreation not heretofore enjoyed in our Hospital, and it has been in pretty constant use since it was completed, with readings, concerts and theatricals. In our medical treatment we employ the usual remedies such as seem best suited to each case.

THE CHAIR. As there is no representative of New Hampshire or Vermont present, and no one has arrived from Massachusetts, who will be able to address us, I would call upon Dr. Sawyer of Rhode Island.

DR. SAWYER. I am not aware of any important change in the condition of the insane of Rhode Island during the past year. There are about three hundred insane in the State, nearly equally divided between the Butler Hospital and the State Asylum for Incurables.

DR. RAY. What can you say about the State Farm as an example of treating chronic patients at less price than usual in other hospitals? Have you had any means of knowing? I am very sure that information would be very acceptable to the Association.

DR. SAWYER. I do not know that I shall be able to give you much information about it. I have seen the patients there, and they always seem to be well taken care of. I do not know what the expense is a week, it is very low. I have not any exact figures on that point.

THE CHAIR. Dr. Buel, of Connecticut, we will be glad to hear from you.

DR. BUEL. I have very little to report to the Association. There are gentlemen here who are better fitted to report upon the state of matters in the State of Connecticut than I am. One veteran officer of the Institution sits there, and I have no doubt can entertain the convention with a report upon this subject, which will interest you much more than I would be able to do. I call upon Dr. Butler to fill my place.

Dr. BUTLER. This call upon me is unexpected. I am not therefore prepared to make any special report. As I have "retired," those in command and on active duty can tell the story much better than myself. Dr. Shew and Dr. Stearns are here and can give a more minute and exact account. I can assure the Association that our institutions are well managed, are prospering and winning public confidence by their good and healthy progress.

The CHAIR. Unfortunately Dr. Shew and Dr. Stearns are both absent from the room, but I see Dr. Gray of New York. We would like to hear from him.

Dr. GRAY. There are several State asylums in New York, but at this time there are no representatives of these institutions present except myself. I may, therefore, speak for the State. During the past year progress has been continued in the construction of the four new State institutions. The Willard Asylum for chronic insane has been extended by the completion of the large building under way when the Association met there last year. It has just been opened for the reception of women. Work has also been continued on the Hudson River, the Buffalo and the Middletown State institutions, and liberal appropriations were made by the last Legislature for all. The appropriation for the Hudson River Asylum, at Poughkeepsie, will complete half the building for patients, leaving the central structure and the other wing. A large appropriation, \$120,000, was made for the Buffalo Asylum, and all that was asked for the finishing of structures already commenced at Ovid and Middletown. Though no one institution has received as large an amount as is often or occasionally given in other States, in the aggregate, the sum is liberal, and doubtless appropriations will be made annually until the insane of the State are properly provided for by the completion of all these institutions. This will increase the State accommodations over what it was for many years, at least twenty-five hundred, which, with Utica, will make the State provision over three thousand. The State Asylum for Insane Criminals will be spoken of by Dr. C. F. MacDonald and Dr. A. E. Macdonald can give you a better idea of the condition and progress made in the large institutions of the City of New York than I can.

The CHAIR. We will be glad to hear from Dr. Macdonald.

Dr. A. E. MACDONALD. Mr. President and Gentlemen, with regard to the Institution under my care, to which I shall refer entirely in my few remarks, I am happy to say that I can report very considerable progress since the last meeting of the Associa-

tion. You will remember, possibly, that my statement of its condition at that time was not a very flattering one. Having come to the conclusion that this condition was largely due to the fact that the medical officers of the Institution had unfortunately acquiesced, perhaps, too readily, in the method of management that had been in vogue there for some time; I determined, for myself, to try the experiment of telling the plain truth about the condition of affairs, knowing that it would result in one of two ways, either in the improvement of the Institution or its remaining in its then condition, under the management of somebody else than myself. I am happy to say that the response on the part of the commissioners to my representations of the condition of affairs was very prompt and very ample. Dr. Ordronaux, the efficient Commissioner in Lunacy of the State, was called in consultation, and a number of changes were made. The one upon which, as we thought, all others hinged, was an alteration in the management of the Institution. Under the old arrangement, the office of warden existed, and to its incumbent were assigned all the executive duties, leaving to the physicians simply the medical treatment of patients. This condition of affairs was altered by placing the Institution upon the same footing as the State asylums, and giving the medical superintendent the sole executive authority. Following this, the most important change, was, perhaps, that in the diet of the patients. The dietary scale was very much increased, both in the number of articles allowed, and in the quality of the several articles. It was anticipated that this improvement would entail an increased expenditure of ten thousand dollars a year, and in fact the expenditure upon that account was so increased, but a corresponding reduction was rendered possible in other branches of the expenditure which more than counterbalanced this increase. The change was indeed an actual saving to the Institution, from the fact that the physicians were not obliged, as before, to have recourse to the drug store and the liquor closet, for what they ought to have found in the larder and kitchen. The patients being better fed, were less destructive, and required less medicine and stimulants, and hence resulted a saving in the cost of clothing and different articles of furniture, and for supplies of medicine and liquors, more than equal to the increased expenditures for provisions. During the three months following the adoption of this plan, there was a very marked increase in the comfort of the patients, and in their well being generally, and their letters to their friends were full of praise of the new order of things. Following

the change there was a marked increase in the number of recoveries, and what was more decisive, a decrease in the death rate of the Institution of fifty per cent. In the short time that has elapsed since the change was made, the good results have been so conspicuous, that I have very little doubt, that at the next meeting of the Association, I shall be able to make a report more favorable still.

Dr. COMPTON. Mr. President, the account we have heard from Dr. Macdonald is very entertaining, and ought to carry a practical lesson to us all, but he has left us in the dark as to the quantity and variety of the diet before it was changed, and as to what it was before he took charge of the Institution, and he has not told us what it is now. I would be very glad if the Doctor would give us some idea of the extent of the improvement in the diet, what the diet was before, and what change he has made, in other words, if the patients were starved before he took charge of them.

Dr. A. E. MACDONALD. In answer to Dr. Compton, I will say, that while the patients were not starved with the diet they had formerly, they were far from being well fed. The best meal they had was their dinner; that was, perhaps, pretty good at all times, but for breakfast and supper they simply had dry bread and oat meal, or something of that kind. We now give them hashed meat and such things for breakfast, and fish, and dried beef and other relishes for supper, and tea and good butter at both meals. We have also increased the allowance of meat and vegetables.

The CHAIR. Is Dr. Buttolph present?

Dr. KIRKBRIDE. Dr. Buttolph has left the room. Although he has not asked me to say anything for him, still it would be wrong to pass New Jersey without some statement as to what has been done in that State, and Dr. Buttolph is so modest a man, I do not believe he would tell the whole truth even if he were here, so with your permission I will say something for him, and answer to him afterwards for what remarks I may make. I think the State of New Jersey has done herself the highest honor by what she has been carrying out for the last two or three years. You all know that Dr. Buttolph is about to take charge of the new Institution at Morristown, New Jersey, which will accommodate eight hundred patients in a very superior manner, and it is undoubtedly one of the best buildings and best arranged Institutions in the whole country. The most favorable thing connected with it, is that the people of New Jersey seem to be thoroughly proud of what their rulers have done, and do not regret the money expended upon it.

It has been a costly building unquestionably, perhaps more so than could be recommended for the States generally, but there is much to show for the money expended. New Jersey is really a wealthy State, and, as I have said, the people seem to be entirely satisfied with all the expenditures. New Jersey seems thoroughly determined that good accommodations shall be provided for all her insane, and better than everything else she does not appear to have the slightest doubt but that she is able to accomplish it. Dr. Buttolph, you all know, has been distinguished as a superintendent at Trenton, and leaves that Institution in the best condition, though much crowded. He is going to a new field of labor, where I am sure, he will do himself equal credit. I think there is no question but that New Jersey is able to provide for all her insane in a very admirable manner and will do it.

Dr. GREEN. Dr. Walker is so modest that I have no doubt that he would like you to speak for him as to what has been done in Massachusetts.

Dr. KIRKBRIDE. I was going to say that I thought we would leave Massachusetts until we got through with the other States, and let Dr. Walker end the discussion, as he always makes a good finish to what he undertakes to do.

The CHAIR. You talk very well for other States, suppose you speak for yourself.

Dr. KIRKBRIDE. I have no objection to say something for Pennsylvania, but I have not much to say for myself.

The CHAIR. It is the same thing, is it not?

Dr. KIRKBRIDE. Not exactly, but I may say that Pennsylvania during the last year, has been doing very well for the insane, not quite all we would have liked, but she has given a fair amount of appropriation for continuing the work on the new Hospital at Warren, which is well planned and is undoubtedly being admirably constructed, under the intelligent commission to whom the matter has been confided. There has also been an appropriation made for the continuation of the work at the Institution at Danville, so that it will accommodate four hundred patients when it is completed. Warren, I suppose, can accommodate from four to six hundred, probably six hundred will get into it soon after it is finished. In regard to the criminal insane, I do not think there has been any progress made. A bill passed the Legislature to give up a certain building near the City of Erie, which is called the Marine Hospital, but which certainly is not calculated for the purpose, and I understand the bill has not received the approval of the Gover-

nor. The commission that was appointed to take into consideration the subject of the criminal insane, two or three years ago, made a report to the Legislature, in which they recommended an appropriation for the erection of a building for that special purpose near the center of the State. The bill recently passed by the Legislature was not at all in unison with the opinions of that committee, and it is possible that may be the reason why the act of the Legislature was not approved by the Governor. There has also been an act passed for the erection of a new Hospital for the southeastern district of the State, which includes the City of Philadelphia, and six or seven counties. The only objection to that law is, that the City of Philadelphia wants two of the largest hospitals that can, with propriety, be put up for the accommodation of her own insane. Certain classes of the insane may be received from Philadelphia, and most of the insane from the other counties, in the proposed Hospital, but Philadelphia has now twelve hundred insane in the department appropriated to that class in the almshouse, and to have them properly provided for, as I have said already, would require two complete hospitals. That is what we are still hoping for, so that taking it altogether, I think Pennsylvania can report more favorably than she could this time last year.

The CHAIR. We would like to hear from Dr. Schultz.

Dr. SCHULTZ. I think it will not be necessary to say anything in addition to what has been stated about the condition of the insane in our State. I will simply add to that, that in the early part of the present year we completed accommodations at Danville, for two hundred additional male patients, above the number reported last year. The appropriation made last winter will enable us to make a fair beginning towards adding the same amount of room to the other or female wing of the Hospital.

The CHAIR. We would like to hear from Dr. Curwen.

Dr. CURWEN. I do not know that I have much to say after what Dr. Kirkbride has said, as he has covered the ground very fully. I might state some matters of detail in relation to the Hospital at Warren, more definitely than Dr. Kirkbride has done. The work is being pushed forward as rapidly as it can be done consistently, with its proper and thorough execution. Last year no appropriation was made, as members will recollect, was stated at the last meeting, but this year an appropriation was made of \$150,000, which will enable the commissioners to do a large amount of work. They design to put up the two extreme blocks on each side, leaving the center building and one wing on each

side of it unbuilt for the present. The object of that is to provide accommodation for the most excited classes first, and thus obtain the largest amount of accommodation for the patients who will be the first to apply for admission. The whole foundation of the building and all the underground work, sewers, air-shafts, &c., was finished two years since, and last year the laundry building was put up and roofed in. The commissioners would invite the most thorough inspection and criticism of the work thus far done, and the manner in which the whole will be done. They propose to make the building thoroughly and strictly fire-proof, and at a very reasonable rate of cost. The brick of a superior quality is made on the premises, the greater part of the stone is also taken from the farm, and in this way a large amount of material has been obtained at a small cost, comparatively. Nearly all the stone for the superstructure has been prepared, and a large amount of other material needful for the building, and what is wanted is the money to put all this in the proper place. In relation to the effort for a hospital for insane criminals, the bill prepared by the commission appointed by the Legislature to consider the whole subject, and recommended strongly by the Medical Society of the State of Pennsylvania, which has taken a very deep interest in relation to this and all matters connected with the care and provision for the insane, was presented to the Legislature last winter and the winter before. The committee without giving any one a chance to say a word in its favor, quietly reported it with a negative recommendation for reasons best known to themselves. The Institution at Harrisburg is moving on quietly, trying to do its duty as fully as the officers are able to do with the means at their command. A committee was appointed by the Medical Society of the State of Pennsylvania to prepare a memorial and bill for a Hospital for the Insane of the seven counties in the southeastern section of the State, outside of Philadelphia. Another bill including Philadelphia, and the four adjoining counties, was also presented by other parties. This last bill was passed amended, so as to include six counties outside of Philadelphia, while the bill of the Medical Society slumbered in the committee to which it was referred. I may say, in relation to other efforts, that the Medical Society of the State of Pennsylvania has taken the matter of the proper care and treatment of the insane in their special charge, and they intend to push the matter forward until all that is required in Pennsylvania, shall be obtained. At their last meeting, two weeks since, it was resolved that a series of papers be prepared and circulated, setting

forth the condition of the insane in different parts of the State, and the necessity of more decided effort for their relief and care, and that these papers be freely circulated with the intention of arousing a greater interest among the masses of the people on this whole subject.

THE PRESIDENT. We would like to hear from Dr. Baldwin.

DR. BALDWIN. Mr. President, at our last meeting I informed you that although the Legislature of 1874-75 passed no appropriation for additional accommodations for our insane, yet the impression left by the long and animated discussions on the subject evinced that the end desired had been merely postponed. In the numerous applications and petitions for the rejected ones, many of whom were lying in our jails, there was manifested a deep under-current of feeling among our people, which was bound to make itself felt. As is often the case, the constituents were in advance of their representatives. I took occasion in my replies to the sheriffs of the counties to keep their coal well blown, to impress upon them that the asylums were being worked to their utmost capacity, and that the Legislature alone could be looked to for relief. Soon after the assembling of that body a meeting of the Board of Directors was convened in the Senate Chamber in Richmond, and after a full conference we determined to ask an appropriation of \$80,000, (\$40,000 for each Asylum,) and we hope with that soon to accommodate two hundred patients, at the rate of \$400 per bed. In the buildings planned for the Western Asylum, we calculate upon accommodating one hundred and ten, viz., fifty males and sixty females. These buildings are to be of brick, plain and substantial, but fully equipped with all the modern appliances in the way of heat, ventilation, &c. The plans for these additional buildings were sketched by Dr. Hamilton, who is well informed as to the wants of the Institution. These sketches have been recently placed in the hands of a skillful architect, J. Crawford Neilson of Baltimore, and we hope soon to have them submitted to the board for final action. In the mean time we are having brick made upon the grounds, and are daily hoping to hear that we can draw upon our State Treasurer for a sufficient amount to enable us to make a start. There are few institutions in this country that possess more natural advantages than the one at Staunton, in regard to climate, accessibility, &c. Situated at the head of the beautiful and fertile valley of Virginia, nature has been most bountiful in her supplies, which are so conducive to the successful and economical management of a large Institution of this kind. We have an unlimited

amount of pure spring water, which is carried by its own natural flow to a reservoir on the hills above, whence by the same flow, it is carried to every story of the building, giving ample facilities for bathing and for the use of the hose in case of fire. The Asylum is located on a gentle slope, at the base of which flows a stream, into which all the drainage is carried. But notwithstanding its great natural advantages and the high estimation in which it was held, the Legislature were loth to increase its accommodation, as in the opinion of its former superintendent it had been deemed inadvisable. The weight of this opinion had, therefore, to be first removed. But the question for my State to determine, was either to enlarge or do nothing, as the condition of our State finances forbade altogether the idea of building a new Asylum. In submitting my views to the members of the Legislature, I am greatly indebted to Dr. Kempster. His report came in good time, and I availed myself of liberal extracts from it. In conclusion, Mr. President, I may say that the present outlook for our insane has been improved by the prospect of an increase of accommodations, sufficient for two hundred more.

Dr. CAMDEN, West Virginia. I am happy to be able to state that at the present, the white insane, as also the colored insane, are well taken care of in our State. We are building a new engine house and laundry, &c., and making additions to our Hospital, and everything is moving forward in a satisfactory manner.

Dr. GRISSON, North Carolina. Mr. President, I have not in my possession, as I ought to have had, a copy of the plans and specifications of the new Institution in North Carolina. It is now about being commenced, and we hope to complete it soon. I shall be able to procure the plans from the architect, Mr. Sloan, of this city, well known to many of my brethren here in this Association, for his success in this department of art, and lay them before some future meeting of this session of the Association.

Dr. ENSOR, South Carolina. Mr. President, I fear I have but little to say of South Carolina that will interest the Association. We have not made the rapid strides there that have been made in other parts of the world in the interest of the insane. We have not kept pace with the enlightened progress and philanthropy of the times. For more than fifteen years our State Insane Asylum has been subject to severe financial embarrassments, growing, in the first place, out of the war which absorbed the substance of the State and engrossed all the energies of the people. Every other interest was lost sight of, everything sank in the great struggle

for Southern independence. Secondly, that is to say, since reconstruction, our financial embarrassments have resulted from the reckless extravagance and shameful frauds and peculations on the part of our State administrations. When, in 1870, I succeeded the venerable Dr. Parker, a gentleman in every way eminently qualified for the high trust committed to him, I found the Institution encumbered with a large indebtedness with no available assets to liquidate it. From that time it has gone on from bad to worse. The appropriations made for the support of the Institution, have been sufficient under favorable circumstances for its maintenance, but these appropriations have never been promptly paid. As a usual thing they have been diverted into other channels to gratify the greed of unprincipled and unfeeling politicians, thus compelling the Asylum to subsist entirely on credit for more than two-thirds of every year. Our employes go unpaid from year to year, and the merchants, who have fed and clothed our inmates, have had to wait, in some instances, for years for their money. About forty thousand dollars is still due them for goods furnished prior to November, 1874. But the State has assumed this debt, and will doubtless pay it in time. Often during these years of embarrassment have our inmates been upon the verge of starvation; often has it seemed that we would be compelled to close the doors of the Institution until more propitious times. Even now we are without a dollar in our treasury, and without the least prospect of receiving another dollar before next winter. Our merchants at home are unable to extend us the credit we need, in a word, we are without money and without credit at home. But in this deplorable state of affairs, I am proud to say that the "Centennial City" has come to our rescue. I have just made arrangements with a prominent house in Philadelphia by which we obtain all the supplies we need to be paid for next winter. This is of incalculable benefit to us, as it enables us to keep our Asylum open and dispense its benefits to that afflicted class, for whose care and protection it was designed. But, Mr. President, in the midst of all our drawbacks, our financial and other difficulties, which need not be mentioned here, it will be gratifying to this Association to know that we have made some progress. Last year we completed and occupied a comfortable and substantial brick addition to our buildings, capable of accommodating about eighty additional beds. We have also, since I last had the pleasure of meeting the Association, made many minor improvements, such as the introduction of apparatus for heating the building

with hot air, the opening of dining rooms, pantries, baths, water-closets, &c., on the various wards, and a system of subterranean sewerage. Moreover I am glad to be able to say that our people are beginning to view insanity in a different light from that in which they saw it a few years ago, and consequently to take a more philosophical and humane interest in the welfare of this afflicted class of our fellow creatures. The officers of our State government, too, are improving. The reign of fraud, corruption and extravagance is rapidly declining, and a more wholesome state of things is generally growing up out of the ruins that have been wrought in the past few years. We have at last gotten an honest and able Governor who takes an earnest interest in all that concerns the welfare of our State, and as we are almost certain to re-elect him for another term, I begin to feel hopeful. I think I can safely say there is a better day near at hand for both the sane and the insane of South Carolina.

Dr. BUTTOLPH, New Jersey. Mr. President, I have but a very few remarks to make as to matters in New Jersey. A most earnest effort has been making there during the last few years to provide for the insane ample accommodation. To provide and care for all the insane we have put up a large institution which is now nearly finished, capable of accommodating all who may wish to be accommodated. Within the next month or two the new Institution will be opened at Morristown. I have nothing special to mention which will be of interest at present.

Dr. KIRKBRIDE. Gentlemen, you see that what I said is correct. The Doctor is too modest and will not tell us all he ought to. I would state to the Doctor that I have been speaking for him.

Dr. BUTTOLPH. I was not aware that any one had been speaking for me, but I am glad to know of the fact.

Dr. GREEN, Georgia. Mr. President, I am pleased to say we have made steady improvement and a satisfactory advance in the condition and general management of our Institution. We have not suffered special trouble from the want of means. Our great trouble has for the past three years, been want of room. We have over six hundred patients in the Institution, and never less, I think, than fifty to seventy applications on record awaiting occurrence of vacancies. No addition has been made to the Institution since 1873, we then finished such additions to the buildings as would provide for two hundred more patients, (white and colored) and having at that time some two hundred applications on hand, very soon these additions were filled. Ever since that the Institu-

tion has been decidedly crowded and gradually becoming more so until we have reached a point at which we are compelled by considerations of humanity, having any proper regard for the health of the patients, and exemption from liability to injury at the hands of each other, to stop and decline to receive any patient, except after notice to the official or other party who has previously made application for their admission, that the individual can now be received. We have also endeavored to confine the receptions to recent cases, and those whose condition imperatively demands restraint, so far as freedom of locomotion is concerned. During the past summer the existing state of things became the subject of very general discussion in the press, with no small amount of animadversions upon the Legislature for not having made provision for all the insane of the State, very many of whom were languishing in the county prisons; and various suggestions were made for remedy of the evil, some of them decidedly impracticable, coming as they did from gentlemen of the press not at all familiar with the subject; others were feasible and might properly have been adopted. Upon the assembling of the Legislature the different suggestions made, with an expression of my own opinion in relation to each, were considered. Though greatly averse to any enlargement of our present Institution, finding they would certainly do nothing else, I proposed the erection of two buildings in the rear of our premises, (within the wall) each to provide for fifty patients. A bill was introduced providing the necessary means for its accomplishment but defeated in the House of Representatives, and they left us with a greatly over-crowded Institution, with numerous applications on hand and very many of those unfortunates incarcerated in the county prisons throughout the State. They, however, did render us a most important service in making an adequate appropriation to enable us to establish such arrangements as will secure an always abundant and reliable supply of pure water, a very important desideration as all of us know who are in charge of such institutions. I will take pleasure in answering any questions, which any may desire to ask in connection with the subject of the condition of our Institution.

Dr. COMPTON, Mississippi. Mr. President and Gentlemen, while I am unable to report anything very new in connection with the insane of Mississippi, I am glad to be able to say that Mississippi has made haste slowly. We are now building another wing to our Institution which will make the third since the war. We are not in debt, we have an ample appropriation for the support of all

the inmates. Our State warrants are selling now at about ninety seven cents to the dollar, and we get them whenever we need them. On the score of substantial comfort our patients have been well provided for. The members of our Legislature have generally labored under what may be called a delusion that the lunatic asylum is tolerably well managed. But however this may be it has been well cared for. Since the war Mississippi perhaps has done more for her insane than any other State in the South. We claim more than is claimed for South Carolina. I think that Dr. Ensor took charge of that Institution about the same time I took charge in Mississippi. The wings were then out of order, the Institution was indeed in a bad condition, but since then we have more than doubled the size, we have made all the repairs necessary, and we do not owe any man a single solitary dollar. A year or two ago I succeeded in inducing the Legislature to give to the superintendent and Board of Trustees a larger discretion in the matter or manner of admitting patients than had heretofore been done. The old rule was to admit them in the order of application. Under the operation of that rule the old chronic patients, whose friends had died and who had been left in the care of a county perhaps, took precedence, merely by priority of date of application, standing thus in the way of the acute cases. The new rule provides that the superintendent and Board of Trustees can discriminate between the applicants; that is we can receive an acute, curable and violent patient in preference to a chronic, incurable and quite harmless patient. While we are not obliged to remove any by the operation of this law, yet by it we can take cases which ought to be admitted, those that are most needy. At the present time we have about seventy-five applicants on our lists; as soon however as the present wing is finished we shall take them all in. I hope, sir, at our next meeting to be able to report still further as to the action of the State of Mississippi in providing for the insane.

Dr. WALLACE, Texas. Mr. President, we are, the circumstances considered, doing pretty well. The facts justify the statement that no urgent case has been denied admission into the Texas State Lunatic Asylum within the thirty months during which I have had the honor to direct its operations. This may be a matter of surprise, when it is recollected that with an estimated population of a million and a half, we have accommodations for only about two hundred patients, very few of any sort and none supposed curable, none unmanageable outside have been denied admission. The mass of our people, not including those who have their

headquarters in the saddle, and who by their deviltry bring so much disrepute upon our State, simple in their habits, and regular in their lives, with little to exact or depress, enjoys an immunity from this sad malady, not common in older and more densely populated communities. A circular letter was addressed to the presiding justices of the several counties, the past winter, with a view of ascertaining, as nearly as practicable the insane population. Eighty of the most populous counties, out of one hundred and forty, the whole number, responded. From data thus obtained there are believed to be about six hundred. Permitting none to remain, who it is believed, can do as well outside, and using due diligence to get recent cases under treatment with all possible dispatch, the demands upon us have been, as above stated, met in almost every case. Not to mention some thousands expended in repairs, in purchase of billiard tables, pianos and other means of amusement, we have, during the past fiscal year, lighted up our whole premises with gas, hitherto done by kerosene lamps, at a cost of \$2,500, have built a good and substantial laundry, with all the modern appliances, at a cost of \$5,500, in place of an old shed supplied with a few old posts, the washing being done out of doors and clothing hung in the sun to dry, a thing not so impracticable in Texas, where the climate is mild and it seldom rains, as might seem to some of you who live under more vigorous suns. We have under way, and approaching completion, a small wing of capacity to accommodate twenty patients, over which is a chapel or assembly room for purposes of devotion or amusement. What with a mile and a half or two miles of twelve feet picketing fence, of deal season boards, four cisterns of aggregated capacity of three thousand barrels, we have expended from our savings, without State help, twenty-five thousand dollars in permanent improvements. I would not have you suppose me so simple as to think these trifles can be of the slightest interest to you who live in communities in which we hear of single institutions costing one, two or three millions, I am sorry myself we *have* heard of such, as I believe it augurs no good for humanity. Already it is being asked in high places, and I think with reason, "why palaces for paupers?" Should any be disposed to smile at this brief resumé of our humble operations, I would rebuke such mirth.

"Let not ambition mock our useful toil
Our lowly joys and destiny obscure.
Nor grandeur hear with a disdainful smile
The short and simple annals of the poor,"

Such interest and such only is invoked or expected as you feel in watching your little boy of some ten or twelve moons, trying, with step all unsteady and movement labored, to perform the daring exploit of making a trip of a few feet from mother's knee to your extended hands, such as thrills the parental bosom on hearing the curly headed little innocent of five summers discourse of the matchless qualities and wonderful performances of her crying dolly, detecting moral and intellectual powers in embryo that are to adorn the future woman and shed light and happiness about your fireside in years to come. Another matter, if inopportune, you will have the goodness to condone it. I have been feeling my way along cautiously, by well considered experiments in the hope of reaching some more satisfactory conclusion in regard to the temporary enlargement from Asylum restraint of a class, or rather sub-class of patients, not a few of whom, if my limited observation is to go for anything, are to be found in all hospitals for the insane, and of permitting them to return to their homes to mingle with familiar scenes and to converse with sane people. The subject was discussed at Auburn. Dr. Kirkbride was understood to oppose it in all cases. Regarding him as a Nestor in the profession, I returned to Texas last year, determined to go slow, but to continue my investigations. I may here remark, that, though recollecting Dr. Kirkbride's objections, my mind had already become pretty well saturated with Maudsley's idea of asylum made lunatics, as an instance of which that distinguished authority refers to the case of Compté, of whom he says, "had he not been taken from under the care of Esquirol and turned over to his wife, the world would never have had the benefit of the system of Positive Philosophy." Be this as it may, of one fact I am pretty well assured, there is more than one individual who now treads the soil of Texas, restored to friends and freedom, who, but for timely release from restraint would now be immured within the walls of an Asylum. I beg a little time not to indulge in any speculative abstractions, but to give, in *paucis verbis*, the most interesting and suggestive of these cases.

CASE I. Mrs. D., widow, æt. 38, mother of several children, admitted November 3, 1874, dementia, supposed cause, religious excitement. Remained in Hospital six months without uttering, that I was aware of, one intelligent word, or performing a rational act, except of course, such as may have been primarily or secondarily automatic. Harmless, her friends were advised to take her home for a time, though it was confidently expected she would be

returned. She was not heard from until the time within which she was to have been returned, had expired. Under date of July 3d, her father wrote. "Mrs. D., is doing well. Began to improve from day she left the Asylum. Reaching home she recognized her mother and children, soon she began to manifest an interest in what was taking place around her, and has now entirely relieved her mother of household care, attending to the housework, cooking and washing, in fact, doing most of it voluntarily with her own hands." Heard nothing since, presume she still retains her mental health.

CASE II. Mr. C., *æt.* 32, married January 8th, melancholia, cause supposed, syphilitic. Remained without improvement, except slight from faradization persisted in, until August 5th, when he was discharged, uncured. He was accompanied to his home by my son going to New York to school, who informed me he began to improve at once on leaving the Hospital. Two months out, Rev. Mr. Brown, rector of the parish in which he lives writes, Mr. C., seems quite well since his return, and his friends think him restored.

CASE III. Mr. J., *æt.* 35, married, admitted October 9th, acute mania, cause, religious excitement. Without improvement on March 1, effecting his escape, went across the country home, a distance of three hundred miles. Every effort to reclaim him failing, becoming uneasy I wrote to the Presiding Justice of his county, and in answer received the following: Mr. J., returned to his home day before yesterday. Upon receipt of your letter to-day, went at once to see him, found him plowing. He laughs heartily at having given you the slip. Presume has since done well, have heard nothing from him.

CASE IV. Mr. R., *æt.* 45, widower, admitted November 20th, monomania, not violent, remained in Hospital three months, marked improvement when he was permitted to return home, though still laboring under harmless delusions. No especial significance is attached to this case, as the patient was progressing finely towards a cure. It is believed his recovery was hastened—he soon became entirely well—by his enlargement.

CASE V. Mr. S., *æt.* 26, married, admitted April 11th, dementia. Patient started from Eastern Tennessee well, and arrived at Dallas, Texas, insane. An ignorant farmer boy, he had probably never been out of the neighborhood in which he was born until he started to Texas. Diagnosed, that sort of dementia induced by sudden shock, ecstasy or bewilderment from inability to adjust the mental equilibrium to the rapidly changing scenes and occurrences of

travel. I confidently predicted an early cure. He was, however, removed home after eight months residence, without the slightest amelioration of the symptoms. Not well advised of subsequent history, only know, has not been returned, reason assigned, was doing well at home.

CASE VI. Mrs. J., æt. 38, married, children, admitted March 5th, religious melancholia. Discharged July 31st, benefited but little, if at all, returning home on a month's furlough recovered.

CASE VII. Mrs. W., æt. 45, widow, several children, admitted November 15th, melancholia, induced by her husband, a most excellent gentleman to whom she was devotedly attached, committing suicide under most heart-rending circumstances. Intellect clear, but most intensely suicidal, neglecting no opportunity to strangle herself with sheets or other things she could get hold of. Begged unremittingly to be permitted to return home to her children, many of whom were small. After remaining under restraint six months and a half, without improvement, her guardian unable to resist longer her implorings to be permitted to see her children, was permitted to take her home on furlough of one month, upon promise to have her closely watched until returned. Has been at home now over a year, have heard from her repeatedly, saw her guardian but a few days ago, who informs me she is cheerful and happy, and attends to household duties and education of her children. Is regarded as entirely well. Leave comment to others. The facts may be relied upon as given. To others, these cases, thus imperfectly sketched, may have but little interest; to me, the result being awaited with intense solicitude, they disclose profound meaning. I can not choose but attach to them a significance that stirs my heart to its lowest depths when I reflect upon the thousands of human hulks that people the asylums reared, throughout the civilized world by philanthropy, for the reclamation of this class of unfortunates, and *believe*, as I do most honestly believe, that hundreds, nay thousands of them are *there* because not permitted at the proper time to return to familiar scenes and to converse with sane people. Hoping to hear more of the subject during the present session, from those better qualified to grapple with its difficulties, it only remains for me to beg pardon for consuming so much of your valuable time.

Dr. CALLENDER, Tennessee. As a report in regard to the general work for the insane in my State, I have nothing of interest to offer, certainly nothing encouraging in regard to what we consider to be the necessities of increased accommodation for the insane.

It will be remembered that three years ago I had the pleasure of reporting to the Association that we had projected two additional Hospitals, and had entered on the incipient work. Last year I was compelled to state they had been discontinued, and I now have no different or more encouraging report. It is a gratification, however, to say there exists a very healthy public sentiment in regard to that subject, as well among the people, as with their representatives in the State Legislature. The obstacle is the straitened condition of State finances, Tennessee being heavily burdened with a public debt, the interest on which, together with the present current expenses of the Government, consumes the taxes. However, one of our members, Dr. Jones, a former superintendent of the Institution with which I am connected, has been appointed by the Medical Society of the State to draft a memorial to the next General Assembly, on the subject. I do not myself look forward to any practical results from this move, but think it will properly serve to keep the attention of the Legislature constantly directed to the important work, so that when our ability to act shall revive, the disposition may not be wanting.

With regard to the Institution I have the honor to represent, we are keeping abreast with the progress of the times in regard to modes of treatment, as well as we are able. The Hospital is always full, and to speak properly, crowded. This condition precludes any fair and thorough experimentation as to the use or non-use of mechanical restraint, a question which is eliciting so much attention. We practice the use of the camisole, muff, crib and lodge seclusion for violent patients, and under the circumstances, achieve as good results as are to be expected.

Dr. CHENAULT, Kentucky. Having so recently become a member of the Association, and for so short a time engaged in the management of the Institution, I hope to be excused from making any extended remarks, but would merely say, that in Kentucky, the insane are generally well cared for, and well clothed and fed, and that improvements are steadily being made in the right direction, and that when the capacity of the Western and Central Asylums are made as great as that at Lexington, we will have ample room for our insane population.

Dr. FORBES, Kentucky. Mr. Chairman, I think the little I should say, would be of no general interest to this Association, unless I indulged in details that would occupy more of its time than it would be proper to consume in such manner, to the delay of more important business and more interesting matter; and then

it would be, in a measure, a recitation of much that has been gone over so often in your meetings heretofore.

One item of general interest I may briefly refer to. It is known to many of you that three years ago, at the time of the establishment of the Institution which I have the honor to represent, our Legislature made what was styled by some a "new departure" in the regulation and government of our State Asylums. This new departure, as my venerable friend, Dr. Chipley, very well understands, was only a relapse to former usages, that prevailed before his day, and even before the time of his predecessor, Dr. Allen. The government of the only Institution then in Kentucky was divided between the so-called Superintendent and the actual Steward, or, as he was then sometimes called, Keeper. It turned out with us, as then, that the government fell pretty largely into the hands of the Steward, so much so really as even to divide pretty equally the supervisory authority. To use a somewhat slang expression, we "rocked along" under this state of affairs till last winter, when our Legislature passed an act which restored to our superintendents their former and proper authority, to a very considerable extent. The result will be readily appreciated by every member here. The matter involved is one that has been settled by a resolution of this Association more than a score of years ago. Every one, who knows anything at all about the management of any Institution, understands very well, that divided supervision is fatal to effectual operation. This is about the only matter of general interest I have to present. As to our affairs at home, of special concern to us, they will not interest you particularly. I will only state now that Kentucky has effected provision about adequate for all her insane. Our Institutions became at times somewhat crowded; but the crowded condition is in turn relieved by discharge, return to friends, mortality, and so on, so that the measure of demand and accommodation remains at about the same figure. There are very few instances, I think not a dozen applicants in the whole State waiting for admittance. Besides, our insane are well provided for. The Institutions at Lexington and Hopkinsville are both in excellent condition. We have increased our own capacity, since I had the honor and pleasure of sitting with you before, from about two hundred to nearly four hundred, almost double. This includes a department exclusively for colored insane. We have a capacity now for one hundred and sixty white males, one hundred and fifty white females, and for about eighty colored population. Our additional building consist of two wings

of brick, a wooden pavilion, detached, and at a distance of over two hundred feet; and our colored department also of wood. The brick structures are of excellent design and architecture. The frame buildings are supplements built upon the suggestion, I believe, of Dr. Jarvis, and a well-attested experience, that cheap structures may answer as well for a class of patients whose care and custody do not require the more substantial and expensive architecture. We have found them to very satisfactorily answer our purpose. One difficulty we encounter occasionally, or might more properly say continually: we have no strong rooms or lodges as they are called sometimes, and this brings me to allude to the subject of restraint. We have no choice about that. While the humane method of treatment has wrought wonders, and while the names of its philanthropic originators and later advocates deserve to be embalmed and kept in sacred remembrance throughout all time and everywhere, still I apprehend the truly maniacal patient has rarely been controlled by moral suasion. As well talk to a mad bear, as to reason with a maniac. Only restraints of some sort will very often do for the time, and having no suitable rooms for lock-ups, we have no choice but in the use of some of the various mechanical appliances, or of manutension. But the construction of such rooms was not neglected or overlooked in our architectural plans. We were so situated as to be compelled to begin our work at the wrong end, and so leave these structures for the last, or extreme wings, which still lie in the probably far off future, wrapped in a fog of legislative uncertainty which no human eye can penetrate. I was forcibly impressed with the wisdom and judiciousness of the procedure in the erection of the Warren Asylum, as detailed by Dr. Curwen. When the whole plan can not be carried up at once, it is of prime importance that the most essential portions have precedence in erection. This is a subject which has occupied my attention considerably for some time, and it is one upon which I am convinced the most serious mistakes have sometimes been made.

But a word more, gentlemen, and I will not occupy your time longer. Your last meeting I had not the pleasure of attending; nor was either of our Institutions represented on that occasion. I was detained on account of sickness in my household, but not in my immediate family. A young lady whom we all esteem very dearly lay critically ill with inflammatory rheumatism. I had my wagon drawn up, and was in the act of entering it, but was seized with an indescribable apprehension that the sword of Damocles

that threatened her heart, might descend at any moment in my absence and cause me a most painful reflection upon myself, and turned back. Dr. Rodman was also detained by sickness in his family, and Dr. Bryant then lay upon his death-bed. Dr. Bryant has passed away. A committee has been appointed to prepare and present appropriate expressions upon the melancholy event. I might remain silent, but I trust you will indulge me while I add my own humble but heartfelt personal testimonial in this connection. I can not claim that I know Dr. Bryant very intimately, but I know him well enough to be profoundly impressed with many points of rare excellence in his character. He possessed an intellect at once vigorous, sprightly and comprehensive, with a very decidedly inventive cast. His learning was extensive and varied; his studies careful and accurate. The microscope invited him to his favorite field, while he never wearied in his efforts in the invention or improvement of instruments and appliances in the advancement of his profession. His life, as far as I could ever hear, was without a blemish. His nature was ingenuous, his manners amiable and attractive, his feelings genial and social. He was deeply imbued with religious sentiment and met his end with unfaltering firmness, leaving on earth I solemnly believe, not an enemy.

The PRESIDENT: I am glad to see at our present meeting one of our members whose presence we have all missed in years past, and whose voice was always heard in our Association. We shall be glad to hear from our old friend, Dr. Chipley, formerly of Lexington Kentucky, now of College Hill, Ohio.

Dr. CHIPLEY. Mr. President, I have very little to say, after thanking the President for his kind personal allusion; being in charge of a small Institution, what I have to say on the subject can very soon be dispatched. Dr. Bunker is here from Ohio and will probably represent the public Institutions of that State. The Institution of which I have charge is very small; we have at present fifty patients. The Institution is what is called private, that is to say, it is acting under a charter and is an incorporated Institution. The inmates are all from that class of the people who are able to provide for their own maintenance. There are no State or charity patients in the Institution. We have room in the Institution for nearly a hundred patients; the building is admirably located and has most beautiful grounds, which are handsomely cultivated, and a more lovely situation for such an Institution I never saw. The main building was erected for a female school at

a cost of about ninety-three thousand dollars; besides that we have five cottages occupied by patients. Before I took charge of the Institution these cottages were appropriated to a class of patients not generally received in Institutions of the kind. I refer to inebriates, and as I have reflected a good deal upon the subject, I take very little stock in that sort of thing and doubt very much as to the feasibility of reforming such by medication, at least as to my own capacity of curing drunkenness. We have none of that class there now, we admit patients that have voluntarily abandoned the use of intoxicating liquors and who come for the purpose of getting rid of what follows from the use of alcohol. They come for the purpose of being treated for the nervous consequences of their former conduct; otherwise we do not trouble ourselves with such cases and only treat such as are admitted in the ordinary Institutions for the insane. Of the fifty patients we have now I would say they are from a wide spread country, eleven different States are represented, the larger proportion of them, however, is from Kentucky. The next State that is largely represented is the State of Ohio. The general cost of maintenance *per capita* is within a fraction of ten dollars per week. I mention as a matter of course that it is necessary to make pretty large charges for the maintenance of patients; the absolute cost on an average is nearly ten dollars per week, within a few cents of that. The State of Ohio I am not very familiar with, practically I have made no recent personal examination of the public Institutions of the State of Ohio, but from what I have heard of them I presume within a few weeks she will have ample accommodations for all applicants. There is a new building being erected at Columbus of enormous proportions, measuring more than a mile and a quarter around the outer wall of the building alone, with about sixty-nine acres of floors in the building. It has been accurately measured. It is a large Institution. Dr. Bunker, perhaps, or some other person connected with it, or with the Institutions of Ohio, will be able to give more particular information as to the progress that has been made in that State.

On motion it was resolved that the statements of progress in the care and treatment of the insane be postponed for the present.

The Secretary then read the list of names of the members present.

The minutes of the meeting were then read and approved.

On motion the Association adjourned to 10 A. M., Wednesday.

WEDNESDAY, June 14, 1876.

The Association was called to order at 10 A. M. by the Vice President, Dr. Walker.

Dr. Walker stated that he had received a telegram from Washington, that Dr. Nichols had started for Philadelphia, and would probably be present this morning.

Hon. J. W. Langmuir, Inspector of Hospitals and Prisons of the Province of Ontario, Rev. F. H. Wines, Secretary of the Board of Public Charities, of Illinois, and Dr. J. S. Sumner, of New York, were invited to take seats with the Association.

On motion of Dr. Richardson, the Board of Public Charities, of Pennsylvania, were invited to attend the sessions of the Association.

On motion of Dr. Steeves, the Governor of the Province of New Brunswick was invited to attend the sessions of the Association.

Drs. Jameson, Richardson and Chittenden, Commissioners of the State Hospital for the Insane, at Indianapolis, Indiana, were invited to take seats with the Association.

The PRESIDENT. I inadvertently passed Dr. C. F. MacDonald, yesterday, in calling for the reports of the different Hospitals. If the Doctor will please excuse me, and accept my apology for the omission, we will hear him now.

Dr. C. F. MACDONALD, Auburn, N. Y. Mr. President, no apology is necessary, sir. It was simply an accidental omission, such as any one might make. But through it, and by a mistake of the reporters, the newspapers of this morning have credited me with

the able remarks of my friend, Dr. A. E. Macdonald, and that, of course, I dislike. The reports made yesterday by Dr. Gray and others, relative to the provisions made for the insane by the State of New York, during the year last past, covered the ground so fully that nothing is left to be added by me, except so far as relates to the Institution of which I have charge.

The President, Dr. Charles H. Nichols, coming in at this time was cordially greeted by the members.

Dr. WALKER. I take pleasure in presenting to the Association, our President, Charles H. Nichols, M. D. [Applause.]

The PRESIDENT, Dr. NICHOLS. Gentlemen, I am most grateful to you for the kindness with which you have welcomed me to the Association. The business of the Association will now proceed. I understand that Dr. C. F. MacDonald had the floor, he will please proceed.

Dr. C. F. MACDONALD. When I left home on Monday we had one hundred and nine patients, ninety-five males, and fourteen females. Of this number about thirty belong to the so-called criminal class, that is, persons whose acts, or attempted acts of violence were committed under the influence of mental disease. These cases have either been acquitted, (or not tried,) on the ground of insanity; and have been sent to us by order of the Court, or have been transferred from other Asylums in the State. Hence we have two classes of patients, the criminal insane and the convict insane. Some progress has been made in the Institution during the last year in the matter of building. The new wing which was commenced by my predecessor in 1872, is not yet finished, but one ward is occupied, and we hope to have another ward ready for occupancy before a great while. When the new wing is completed we shall be able to accommodate, comfortably, one hundred and fifty patients. Our Legislature, at its last session, appropriated three thousand dollars for completing the new wing, and also appropriated liberally for repairs, such as roofing, painting, &c., on the old structure which is sadly out of repair. The work is being pushed forward as rapidly as possible. We have recently made some important additions to our dietary, such as tea, coffee, butter and an extra diet-list for the sick and feeble. The beneficial results are already apparent in the markedly improved physical condition and general quietude of our patients. That is about all I have to report.

Dr. J. WELCH JONES, Louisiana. I exceedingly regret that I can not say for our State and the Institution I represent what others have said, but this can not be done owing to the political muddle in our State, and from the fact that little interest is taken in the treatment of the insane. Our buildings are too small, and our appropriations too small to clothe and feed those that are on hand; they are badly provided for.

Dr. BUNKER, Ohio. Mr. Chairman, and Gentlemen, I have but little of interest to report in relation to the Asylum with which I am connected. It is known to you that ours is a County Institution, open only for the reception of patients from Cincinnati, and from Hamilton Co. At the beginning of the present month we had in our care six hundred and twenty patients, an increase of six per cent. over that of the previous year; and about two hundred and fifty beyond the true capacity of the house. There have been plans submitted, one of which was partially adopted, for the erection of a detached building for the chronic insane. We have no authority to select cases; our Asylum is open to idiots and epileptics, as well as the insane. As we have no outlet but death or recovery, our Asylum, as a consequence, has a very large percentage of chronic and incurable cases. The initiatory steps for providing for this class have not yet been taken, beyond the adoption of a plan. I trust, however, the work will soon be commenced and carried forward to completion. I regret that Drs. Strong and Gundry are neither of them here to speak for the State. Dr. Landfear of the Dayton Asylum is present. I am not well posted as to what has been done in relation to the State Asylums. There were some modifications of the law, in relation to the State Asylums, made at the last session of the Legislature, the most important of which was changing the number constituting the Board of Directors from three to five; other changes were of no great import. The Asylum at Columbus, spoken of by Dr. Chipley, yesterday, is an immense structure. We have the promise that it will be completed next November, but from the manner in which it has been dragging its slow length along for several years, it will probably not be opened for at least a year. I think of nothing else at present.

Dr. LANDFEAR, Ohio. Mr. Chairman and Gentlemen, being comparatively a new comer I feel hardly competent to report on the Dayton Asylum although I have been connected with it about three years. As is the case with other Institutions of the State we are badly crowded, having from fifty to seventy-five more patients

than we can easily accommodate. Everything in our Institution seems to be moving along smoothly. When I left we had five hundred and ninety-one patients in the house. As regards the other Institutions in the State I had hoped that Dr. Gandry, who is probably better acquainted with the Asylums, their wants and the care of the insane would be present. He is, I understand, in the house at this time. Dr. Bunker has spoken to you of the Institution at Columbus. Since your last meeting the Asylum at Cleveland has increased its capacity, and has been opened for the reception of patients. It has now a capacity for six hundred and fifty, is elegantly furnished and is a credit to the State. In that respect we can report progress. I hope you will have the opportunity of hearing from Dr. Gandry, who can give more light on the subject than I can.

Dr. EVERTS, Indiana. I have simply to report an entirely satisfactory condition of our own Hospital and to report progress in respect to completing the building of a new one.

Dr. CARRIEL, Illinois. I do not think that I have anything very special to report. No particular change has been made or increase in the buildings in the State of Illinois, and particularly in the central part of the State in the Institution which I represent, since our last meeting. We have been going on there with some improvements in the building that we have, and of course are always crowded and over-run with patients or should be if we should take all that applied. The State of Illinois has only about half accommodation for her insane; there being about three thousand deranged persons in the State and only three Institutions beside the Cook County Asylum, which I suppose will not accommodate more than half the insane; but there is a kindly feeling in the State towards making provision for this afflicted class both for their accommodation and support. The State of Illinois, within the last five years, has built two insane Hospitals, and a State House, which has taken all its surplus change. I think the last appropriation, or nearly the last, has been made for these buildings, and I hope soon in the future they will begin another Institution for the insane.

Dr. KILBOURNE, Illinois. Mr. President, I do not know that I can add anything material to what has been stated by Dr. Carriel concerning the condition of our charities in Illinois; certainly nothing of special interest to the Association at this time. The Institution over which I preside was completed in August 1874, in accordance with the original plan; but the new wings, owing to

lack of an appropriation were not occupied until the following spring. They are now fully occupied and the limit of our accommodation has been reached. With respect to legislation affecting all the charitable institutions of our State, I am pleased to state that it has in no degree abridged any of the power and privileges hitherto enjoyed by us and deemed essential to our well-being; but in many respects it has rather strengthened our hands and placed us in a better position than before, our State Board of Public Charities, working in perfect harmony with us, and thus far never in antagonism with our interests.

Dr. MERCER, Illinois. I would say as regards the Southern Hospital for the Insane, that during the past year the center building has been completed and occupied, and the number of patients raised from one hundred and twenty-five to two hundred and twenty-eight. The south wing is in process of construction and will be ready for occupation early in the spring of 1877, raising our total capacity to about four hundred and forty patients. There is nothing else I know of that would be of interest to the convention.

Dr. KEMPSTER, Wisconsin. Mr. President, since the last meeting of this Association Dr. A. S. McDill, Superintendent of the Wisconsin State Hospital for the Insane, at Madison has been removed by death. I had hoped that Dr. Boughton, who succeeds Dr. McDill as Superintendent, and who was with Dr. McDill through his sickness and death, would have been present to announce to this Association the loss it has sustained. Dr. Boughton is in the city and will doubtless be present to state what changes have occurred in the Institution he represents. The Hospital at Oshkosh has been completed to its full capacity giving us room for five hundred and fifty patients. The Institution has been well equipped and will, I think, compare favorably in all the essentials with any Institution in the country. The Hospitals at Madison and Oshkosh furnish accommodation for eight hundred and fifty patients, leaving about four hundred insane persons in the State yet unprovided for. I think that within the next two years we shall be able to report that Wisconsin has made ample provision for all the insane in the State, as there is at present a determination on the part of the people of the State to make suitable accommodation for all of this unfortunate class.

The PRESIDENT. Will Dr. Ranney favor us with some remarks.

Dr. RANNEY. Mr. President, I represent in part one of the Western States, with a rapidly increasing population, and a large

number of insane persons within her border; but I am sorry to say the accommodations for the insane have not increased with the ratio of the increase of their numbers, which I suppose has not fallen short of the general ratio to the population. Since 1865, when the Hospital at Mt. Pleasant had become insufficient for the needs of the State, the population has nearly doubled, while room for only two hundred and fifty insane persons has been provided. Whatever has been done since the last meeting of the Association to provide further Hospital accommodations, in Iowa, has been done at Independence, of which my colleague, Dr. Reynolds, can speak more definitely than I can. No change in the Iowa laws relating to the insane, or Hospitals for the insane, has been made since the biennial session of the Legislature in 1864. At that session the original "Act to Protect the Insane," sometimes known as the "Packard Law," was so modified as to restore to superintendents the right to examine the letters patients write and receive, thus securing to superintendents, by legal enactment, what they before had only assumed to have the right to do. Patients may still write to and receive letters from the State Visiting Committee as before. About the same time the Attorney General decided that the committee had no such power as they had assumed, to discharge patients at their will; but that patients can only be discharged in accordance with pre-existing laws, substantially Dr. Ray's project for a law as adopted by the Association. And so, as the law is shorn of its most harmful and objectionable features, and the committee deprived of assumed arbitrary power that was most mischievous in its tendencies; they do not differ very essentially from the Visiting Committees of the Board of Trustees, except that there is not, and probably in the nature of things can not be, the same harmony and unison, and mutual confidence and coöperation between its superintendent and the former, as between him and the latter, and consequently their usefulness is about *nil*. The committee are still authorized to visit the wards unattended by any officer of the Hospital; but only one insists upon going about unattended, and that committee has visited the wards about all hours of the day and night, and often taken meals with the patients.

In consequence of the rapidly increasing population of the State, and the tardiness with which additional accommodations have been provided, the Hospital under my care has become overcrowded. In wards spacious enough, but not too much so, for three hundred patients, we have had for a few months past about

six hundred. While strongly opposed to such crowding as not being for the best interest of many, and putting in jeopardy others; I feel we have prevented some suffering and misery, by not sending our surplus of patients to the poor-houses and jails, for a large proportion of whom there could be no other shelter outside of the Hospital.

On the 18th of April last, the Hospital suffered from a disastrous fire, by which the rear center building, containing the engine, boiler, pump, washing, ironing, and fan-rooms, the engineers and painters shops, sleeping rooms for firemen, and valuable machinery, stoves and fittings, was destroyed. As the wind was brisk and drove the flames and cinders directly towards the main building, but a few feet distant, the whole structure was for a short time in great peril. In a few minutes after the breaking out of the fire two strong streams of water were turned upon it, by which it was checked at this point, and in the direction of the greatest danger. Had the fire originated at a point more remote from the pumps, probably much more might have been saved, but the progress of the fire soon rendered them useless, though not till after the main building, through their efficacy, had been placed beyond much danger. To rebuild upon a better plan and in a better manner, however, will cost, it is estimated, about \$35,000.

The PRESIDENT. Can you tell us whether there was anything in the mode in which the fire took place that will be instructive to the Association?

Dr. RANNEY. The building had been built up at different times to give additional room and needed facilities in some departments, with no particular view to render it in any sense fire-proof. It was really little better than a tinder box, having a shingle roof, and at the time was as dry as dry can be. It has always, since my connection with the Hospital, been a source of much watchful anxiety. The fire took on the roof, perhaps from a spark from the ironing-room chimney, though twenty-five or thirty feet distant from that chimney, and not quite in the direction the wind was blowing. The cornices of the building were of wood and the fire crept along them from point to point with considerable rapidity in spite of much exertion to prevent it. Had they been constructed of less combustible material the fire might have been confined to much narrower limits.

The PRESIDENT. What are your facilities for extinguishing fires?

Dr. RANNEY. We have two powerful pumps to which the hose can be attached and it was by means of these pumps we saved the main building.

Dr. REYNOLDS, Iowa. Mr. President, since our last meeting, the capacity of the Hospital for the Insane at Independence, Iowa, has been increased from two hundred to two hundred and seventy. We expect to keep it at that number. We discharge the fittest patients so that the number shall not exceed two hundred and seventy, the capacity of the Hospital, sending them to their friends and the almshouses, in counties where they are supplied with almshouses. Within the last year we have been investigating the subject of epilepsy by means of the ophthalmoscope. I had prepared a paper on that subject, which I will read at the next meeting.

The PRESIDENT. You may as well read it at some of the sessions this year.

Dr. REYNOLDS. No, sir, I will read it at the meeting next year.

Dr. RANNEY. I, for one, would like to hear Dr. Reynold's paper, and what result he has arrived at.

Dr. REYNOLDS. I would do so, but I supposed this meeting was more for the purpose of sight-seeing, and so did not bring the paper, although it is ready. I will read it at the next meeting.

Dr. SMITH, Missouri. Mr. President, I have very little to report from Missouri. Since our last meeting we have had no session of our Legislature, and hence no appropriation for increased provision for the insane. We have never had a special census in Missouri to determine with accuracy the number within our limits. I have heretofore endeavored to approximate correctness by calculating one to every thousand, and our population being very nearly two millions, estimated about two thousand insane in the State. We have two State Institutions that will accommodate six hundred, the one at Fulton three hundred and fifty, and the one at St. Joseph two hundred and fifty. We have also the St. Louis County Insane Asylum, with capacity for three hundred, and the St. Vincent Asylum for two hundred and fifty, making the total provision for the insane in Missouri eleven hundred and fifty, and the number unprovided for not less than eight or nine hundred. I have often thought that our State for the purpose of determining with certainty the number of this unfortunate class, for whom no provision has been made, should appoint a commission like the one in Massachusetts some years ago. Such a commission of well qualified gentlemen deeply impressed with the necessity and importance

of a thorough and searching investigation, would doubtless discover a much greater ratio in Missouri, than we have supposed, perhaps one to every seven hundred, instead of one to every thousand of our population.

My firm conviction, Mr. President, is that every State in our Union, that has not already done so, should appoint such a commission, and when the number of insane unprovided for shall have been determined, make an appropriation at once commensurate with their wants. If other important interests for the time suffer, let it be regarded our imperative duty first to make ample provision for all our most helpless, dependent and deeply afflicted citizens, as all regard the insane to be.

Such a course of searching investigation and prompt action on the part of all the States would accord, not only with the dictates of enlightened philanthropy and Christian civilization, but the wisest economy, and, I may add, would be a spectacle of moral grandeur without a parallel in the world's history.

The internal working of our State Institutions, as far as known to me, has been most pleasant and harmonious. My colleague, Dr. Catlett, will, of course, speak of his own Institution.

I may add that during the past year we have made a large pond covering about two-thirds of an acre, and excavated twelve feet below the surface of the ground. It is located near our reservoir, and supplies from the same pipe. This pond will supply us with good ice during the winter, and place us above every contingency, I think, as far as water is concerned.

THE PRESIDENT. Can you not induce your Legislature to appoint such a commission as you have indicated?

DR. SMITH. I think it is probable we can. At any rate we will make the effort.

THE PRESIDENT. I hope you will be successful.

DR. CATLETT, Missouri. In my brief remarks I shall confine myself to matters pertaining to the Institution I represent, this being the intent of such annual reports as I understand. As this is the first appearance of State Lunatic Asylum No. 2, in your body, it may be well to inform the Association that it is located in the northwestern part of Missouri, near the city of St. Joseph, upon one hundred and twenty acres of very rich land, in the most fertile and productive portion of the State, and therefore, a most suitable place for its location. Its location in all respects is an eminently good one, except as to the water supply; but from the geology of this section of the State, as well as from

successful explorations for water in the vicinity of the Asylum, we are encouraged that by well directed efforts an abundant supply can be obtained. The edifice is two hundred and fifty feet long; the center building is fifty by one hundred and thirty; the wings one hundred and thirty-eight, each four stories high, with the combination of French and Mansard roof covered with slate, with a basement under the whole. A commodious kitchen under the rear central building containing most of the new cooking appliances. The food is carried directly from the kitchen to its destination by dumb waiters. An incommodious narrow hall running across the rear of the center building and forming a part of the basement of the rear, thus separating the kitchen from the basement of the main building, was designed as the laundry.

The edifice was received by the present Board of Managers from the hands of the irresponsible and bankrupt contractors, imperfect in architectural design, and incomplete in construction in October, 1874. On November 9, 1874, the Institution was opened for the reception of the insane. The capacity of the building is two hundred and fifty patients. We have admitted two hundred and thirty-six since the opening, remaining in the Asylum when I left, one hundred and sixty-four; ninety-two discharged from all causes, sixteen of these deaths. In consequence of the Fulton Asylum being full, Dr. Smith has had to discriminate in favor of the curable, therefore many incurables have fallen to my lot. We obtained an appropriation at the session of the Legislature, 1874,-5 to complete, enlarge and remodel the heating apparatus, and also to erect an engine house, laundry and employes department. Last year was devoted to the prosecution of the objects, which, I think, have been accomplished in a successful and satisfactory manner, so that in the future, I hope to have more time to devote to medical duties. I have nothing new to add, as to the treatment of the insane. *Lex humanitatis* is the motto of our by-laws; all treatment must conform to this; restraints are used in kindness, only when imperatively necessary, and always the mildest that will accomplish the end.

Dr. FULLER, Nebraska. We have to report that since we last met we have doubled the capacity of our Institution for the care of the insane; at that time the building had a capacity for forty-five patients, and we cared for fifty-seven. We have now seventy-six patients. We have now no application for admission on file, except for two or three epileptics and few idiots, which the State law regulating and governing the Institution does not permit

us to take. I made a statement here a year ago, that the population of Nebraska was two hundred and fifty thousand, or something more than that, and that we had two hundred and fifty insane. I had then been in charge of the Institution but two months, and made the report from the figures of my predecessor. I have since made fuller investigations, and find the state of things different. There are not one hundred and fifty insane, and the State has provided, as I said, for seventy-six, at present. We have room for fourteen or fifteen more; there is no application on file, and some chronic harmless cases are provided for by friends at home.

Dr. STEEVES, New Brunswick. Mr. President and Gentlemen, as the last born member of the Association, I desire to observe a becoming modesty in what I have to say to you. I should, however, do violence to my own feelings, if I did not give expression to the feelings of pleasure and satisfaction that I have in meeting so many distinguished members of the Association, especially the veterans in our specialty who are present here.

The Provincial Lunatic Asylum, at St. John, N. B., which I now represent, was formerly under the able superintendence of Dr. John Waddell. It is situated in the Province of New Brunswick; this Province, in the Dominion of Canada, contains a population of upwards of three hundred thousand people, and from this source the Institution is supplied with its inmates. According to the last Dominion census, there were in the Province about seven hundred insane, a pretty large percentage as may be seen. But I conclude that these large comparative figures are due to the fact that in the estimate there are included with the ordinary insane, idiots, cases of senile dementia, and some epileptics.

There are now in the Asylum, two hundred and seventy-eight patients, and although that is less than half of the whole number in the Province; yet it can be said that no one has been thus far refused admittance, and so far as I am aware, none are confined in almshouses or in jails.

Our building, as originally designed, afforded ample accommodation for two hundred patients, but fifty additional ones can be taken care of moderately well. The present number being two hundred and seventy-eight, it is plain that we are in the position of many other similar Institutions on this continent and elsewhere. Although this matter has been fully pressed upon the attention of our commission, so far no active steps have been taken to erect buildings for additional accommodation.

I have no ideas of my own in relation to management or treatment to report. My Institution, except that it is crowded, is in a prosperous state. The Government, who are the Commissioners, accord to the Superintendent powers commensurate with his responsibilities.

Dr. CLARK, Ontario. I may say, Mr. President, that I am glad to see the members of the Association for the first time. I am the successor of a gentleman, I presume, well known to every member of the Association, Dr. Workman, who resigned on account of advanced age, last year, and the Government was pleased to appoint me as his successor. I am young in Asylum practice, although from my appearance you may judge that I am of mature age; yet I am young as a member of this Association, or of any association of this kind. Having assumed the Superintendence of the Asylum only last December, I may say I am very glad to be here, and learn what I can in relation to this matter, and to receive any suggestions that will be thrown out by the veterans of an Association of this kind. Whatever practical hints may be given will be gratefully received by myself.

I may say, in the Province of Ontario, (a Province that contains probably not over two millions of people,) there are four Asylums. Toronto has had an Asylum for about thirty-eight years; there is another at Kingston, which is a little older, and there are two other Asylums at London and Hamilton. In the Asylum at Toronto, we have accommodations for about six hundred and sixty patients. Until recently, our Asylum was filled to overflowing, from the same cause that other gentlemen have mentioned to-day; but an Inebriate Asylum having been built at the city of Hamilton, forty miles away, it was converted into an Asylum for the incurable, the quiet and inoffensive, and so far as I know, about one hundred and fifty have been provided for in that Asylum. They are very much pressed for room as all our Asylums are. Many of these unfortunates have heretofore been provided for in jails or almshouses.

The consequences have been that I am continually taking in those who have previously been provided for in jails and almshouses, as well as the other Asylums at Hamilton and at London. The Superintendent of the latter is a member of your Association, and the other at Kingston superintended by Dr. Dickson, has provision for the criminal insane, as well as for others outside of the criminal class. I may say that I do not take into the Toronto Asylum, except occasionally when they get in, in spite of us, any epileptic or idiotic.

An Asylum is now being built, and will soon be opened for the idiotic, a short distance north of Toronto. I have not the least doubt but my friend, Mr. Langmuir, the inspector of prisons in the Province, who is present, can give you more information on this point than I can.

Mr. Chairman, I trust that he, as he has superintendence of all the Asylums in the Province, except Kingston, and inspects the prisons and charity hospitals, and is responsible to the Government, and we are responsible to him for the good management of our Hospitals, will give us a detailed statement in relation to them. I will be glad to hear the discussions from time to time of this Association, and I have the great pleasure in being present as a representative of one of the Asylums north of the great lakes.

Dr. PARSONS, New York. Dr. Macdonald who is in charge of the New York City Asylum for males on Ward's Island, has already made some statements regarding the favorable progress that has been made in the management of the New York City Asylum during the past year. I shall be very glad to add a few words on this subject, although what I may have to say will probably be for the most part cumulative in character.

Since the first of January, 1875, three pavilions with a capacity for sixty patients each, have been completed and occupied. Two more are nearly completed and will soon be occupied, making an addition to the domiciliary capacity of the Asylum on Blackwell's Island, sufficient for the accommodation of three hundred patients. The Asylum will then have suitable domiciliary accommodation for nine hundred patients. There are now thirteen hundred patients under treatment at the Asylum.

Important improvements have also been made in the clothing and in the dietary. Clothing has been furnished more abundantly and of better quality than heretofore. The dietary has been greatly improved both in substance and in modes of preparation. The dietary scale now in use covers a period of two weeks, during which time the dietary for each day differs from that of any other day. The advantages of the new dietary are demonstrated by the fact, that since its adoption, the general health of the patients has been improved, and that there have been no diseases among them depending on imperfect alimentation, whereas previously this has uniformly been the case, especially during the spring and early summer months. Better provision has also been made for the means of relaxation and amusement. A large building spacious enough to accommodate six or seven hundred persons has been pro-

vided as an amusement hall. Entertainments of various kinds, as concerts, exhibitions, comedies, &c., are given in this hall each week, by amateur or professional performers from the city. The hall is also used for dancing and for the daily gymnastic exercises. During the summer months, patients in parties of about fifty, are from time to time, taken a steamboat excursion to Hart's Island. In fine, the present Board of Commissioners have manifested a laudable appreciation of the wants of the Institution, and have made energetic and intelligent endeavors to supply these wants.

The PRESIDENT. Can you tell how much these dietary changes have added to your average cost to the patient?

Dr. PARSONS. I can not say, but the increase has been very slight. An estimate was made that the increase in expenditures would be about thirty per cent., but there has been a very large diminution in the cost of supplies, as compared with previous years, and this diminution in cost has been such as in a great degree to counterbalance the cost of improvement.

Dr. RAY. What is the whole working average cost?

Dr. PARSONS. Twenty-one and a quarter cents a day *per capita* for the year 1875. Improvements, however, are still required, which would involve a considerable increase in this rate of expenditure.

The PRESIDENT. Is that for food alone?

Dr. PARSONS. No, sir. The amount mentioned includes the expenditure for food, clothing, salaries and wages, fuel, light, medicines; in fine, for everything except new buildings.

Dr. BLACK, Virginia. Mr. President and Gentlemen, I was not able to be present at the session yesterday morning. I understand my friend, Dr. Baldwin, from the Western Lunatic Asylum, made the report for the asylums of the State, and I do not know that I need add anything to what he has said. I may, however, say that I am quite a young Superintendent of a lunatic asylum, it being but last January that I commenced my duties in the Institution of which I have charge. On the night of my arrival at Williamsburg we had the misfortune of having a fire that destroyed the chapel, amusement hall, kitchen and bakery. The result was to some extent disastrous and quite embarrassing, but by the use of other rooms for the purposes for which the chapel and amusement hall were provided, and the building of a bakery and temporary kitchen, we have to some extent recovered from the loss. The Legislature came to our relief, and made an appropriation of forty thousand dollars for the erection of additional buildings. The

capacity of the Asylum is three hundred, with an average present last year of three hundred and three. With the aid of the appropriation we will be able to accommodate four hundred, which we hope to accomplish within the next year. The Institution is equipped with most of the modern appliances, and is getting along successfully, (considering its recent embarrassments,) at least so far as I can judge from my limited experience.

Dr. MEAD, Massachusetts. I do not know that I have anything to report that will be of any interest to the Association. My practice is confined to a very limited sphere. The Institution is situated at Roxbury, near Boston, and its capacity will enable me to take seven or eight patients.

Mr. J. W. LANGMUIR, Inspector of Asylums of the Province of Ontario. Mr. President and Gentlemen, I am very glad along with Dr. Steeves and Dr. Clark, medical Superintendents in Canada, to be present at the meeting of this Association. Although we differ politically from you in the United States, and although we are geographically divided, still in this specialty we can all meet upon common ground. When you, sir, were in Canada last, along with many other members of this Association that I see here to-day, you will remember that we had in the Province of Ontario at that time three Institutions for the insane, viz: the Toronto Asylum, the London Asylum, which had only been opened a few months previous to your visit, and the Kingston Asylum. The Kingston Institution was originally intended for the criminal insane, as they are called, but at the present time there are only twenty-four of that class in the Asylum, out of a total population of three hundred and seventy. This accommodation, which was equal to about sixteen hundred beds, proved to be inadequate to the demand, and last year steps were taken by the Government to increase the accommodation to twenty-four hundred beds. An institution which has just been completed, and was originally intended for an inebriate asylum, has been taken for insane patients. It was felt that the wants of the insane were of so much greater importance than the wants of inebriates that the Institution was devoted to the purpose of an insane asylum, in order to provide for the immediate demand. The building is not exactly suited for the insane, being all in associated wards; some of them altogether too large, and others too small, but it is in contemplation to increase the capacity from two hundred to four hundred beds, the additions to be all single rooms. It is also contemplated to increase the accommodation of the Kingston Asylum from three hundred and seventy

to five hundred beds. We also intend this coming year to erect two or three more cottages at the London Asylum. At that Institution, where we have a large number of incurable patients, and a great deal of land, we have commenced the cottage system, by which means the quiet chronic patients are removed from the main Asylum to these cottages, which are only distant about three hundred yards from the main Asylum. In place of sending these comparatively quiet, but hopelessly insane people home, or into the poor-house or almshouse, or into the common jail, neither of which ways can be pronounced humane, we propose to make provision for them in that way. The experiment has been eminently successful so far, and the patients themselves like the change very much. Those who have been removed from the main Asylum to the cottage, take it as a punishment to be sent back again. We therefore propose to build three more cottages, with a capacity for sixty in each cottage, which will increase the accommodation of the London Asylum by one hundred and eighty beds. We have now nearly completed an Asylum for Idiots. That class has been very much neglected in Ontario in the past, but the completion of this building will give accommodation for two hundred. In this way, Mr. President, we propose to increase the Asylum accommodation of the Province of Ontario from sixteen hundred to twenty-four hundred beds, which I trust will answer the purpose for some time to come. I may state for the information of the Association that our Asylums for the insane, as well as all our public Institutions for the deaf and dumb, the blind, and the hospitals and prisons come directly under the control of the Government. We have no Boards of Directors to intervene between the Government and the Superintendents or managers of these Institutions. As Dr. Clark has stated, I have the honor, under the Government of the Province, to be the Board myself for the management of all these establishments. I also have the supervisory control of the other local Institutions of the Province, which receive aid, but are not entirely supported by the Government.

The Province gives to these hospitals and local charities in the various cities and towns an amount for their support, proportionate to the number of patients or inmates which they receive, and for this the Government, through the inspector, exercises supervisory control over their affairs in order to obtain efficiency and uniformity in management.

The same may be said with regard to a certain class of almshouses or houses of refuge, but of these we have only five in the

Province. Altogether I have, as inspector, to visit and inspect seventy-eight institutions in the Province of Ontario. From what I have heard of the organization and powers of your Boards of State Charities, I do not think that these Boards stand exactly in the same position as the inspector in Ontario. I think the control and power of the inspector is more direct; for instance, if I report a structural defect, and recommend that it be remedied, it is attended to immediately, provided the money has previously been voted by Parliament, which we have no difficulty in getting, when proper representation is made. The Province has already spent upwards of two millions of dollars in providing structural accommodation for her insane, and before we will have completed our additions to augment the accommodation to twenty-five hundred beds that amount will be increased to three millions of dollars.

The PRESIDENT. In your Province?

Mr. LANGMUIR. In the Province of Ontario alone, I may state that the Dominion of Canada is comprised of seven Provinces, Ontario being the largest and has a population of about two millions. Under the Confederation Act which took effect some years ago, each Province has the charge of its insane, and all the Institutions for the care and treatment of physical and mental defectives and the local charities generally. These, along with the county gaols were handed over by the Dominion to each Province to manage. In some Provinces the care of that class of the community and the management of the various institutions are more effective than in others. I think I may state without exaggeration that the Province of Ontario is fully up to, if not in advance of, most countries of the world in the care they take of their physical and mental defectives.

Rev. Mr. KERR, Trustee of the Hospital for the Insane, Minnesota. I regret that our Superintendent is not with me on this occasion. I would simply state that Minnesota has but the one State Hospital erected at St. Peter. Our building as completed at present, will accommodate five hundred patients and we are now full. We are about to provide, and have to provide, in the temporary buildings for perhaps one hundred or one hundred and fifty more patients until the State makes further provision for them. As I have said we have about five hundred patients under treatment. So far as the internal arrangements of the Hospital are concerned I need not report. There seems to be a marked increase within the last six months of applications to enter our Institution from every rank in life. With a population of some six hundred

thousand, we have nearly one patient to one thousand represented in our Institution. With these remarks I will close, I will say, Mr. President, that Hon. Heaman Talbot, a member of our Board of Trustees for the State is present. If it is your pleasure I will introduce him to the Association.

The PRESIDENT. The Association will be glad to hear from Mr. Talbot.

Hon. H. TALBOT. Mr. President and Gentlemen, you can easily perceive I am a very young man although I present the appearance of being advanced in years, but still I *am* a young man with reference to Institutions of this kind, and you will bear that in mind when you hear anything I have to say relative to these Institutions. I have only been connected with it for two years while my friend Mr. Kerr was with it from the very start, helping to raise the money to build the Institution, and was present when the first spade was thrust in the ground, and knows all about it from beginning to end, and I wish they would send from Washington to that place some of those extraordinary investigators to see what has become of the money that Mr. Kerr has had carrying on that Institution in Minnesota, although I believe that not enough to buy a respectable cigar has stuck to his hands, but he is too modest to tell you that. That gentlemen, is about the only thing I know in reference to the Institution in Minnesota, and if an investigating committee was sent out there that is about what they would find out. As Dr. Bartlett is not here I will say that at present, as I am speaking for a friend, you can say with safety that the Institution in Minnesota is a model one. I visit it very frequently, as a director, I take a great pride in visiting the building and occupying myself from time to time with that subject, and I freely give my testimony as to the great care with which the Institution is managed, and say I never entered as thoroughly clean and beautifully kept house as that is in Minnesota. I would say also that the patients are generally healthy and cheerful and contented. I did regret to hear the remarks made by the gentleman yesterday, and I trust he is not offended. I do not believe the gentleman if he had thought, would have made the remarks, but he was gone before they were alluded to. He said that the death rate in one Institution has decreased fifty per cent. simply because the men and women have been allowed enough to eat. I would refer the gentleman to the good old Canadian times, I know all about. I shot and hunted game on the spot where those Institutions are now built, years and years before they were erected. I recollect the

Governor General of Canada in 1836 had said of him that he had the qualifications of a governor, for he had been a commissioner of the Poor Laws in England and had spent his life in experimenting on the bowels of the paupers, to see the least possible amount of food that would keep soul and body together. Can it be possible that that has been done at this day in the enlightened city of New York? I am glad to say I think that is a mistake. We should give the patients enough to eat, and I am proud to say that that is the case with the Institution in Minnesota.

The PRESIDENT. I see Dr. Jameson, President of the Board of Trustees of the Indiana Hospital for the Insane, is present, and it is always a pleasure to hear him. He was with us at the last meeting of the Association, and I am glad to see him present to-day. I am sure the Association will be glad to hear some remarks from Dr. Jameson who has had a large experience in the management of an institution for the insane.

Dr. JAMESON. Mr. President, I do not consider myself entitled to a seat here, but will say a word or two notwithstanding. I have been for nearly sixteen years one of the Board of Managers of the Indiana Hospital for the Insane. The Institution was small and meagre in its appointments when I became connected with it. It has grown till it is now a good one, with, as my friend has already told you, a capacity for six or seven hundred patients. It will, I think, compare favorably with any State Institution in the country. Upon the same grounds, and to be under the same control, we are now erecting a separate building for women about ten hundred and forty feet in length, which when finished, will afford room for seven hundred more, and meet the requirements of the insane of the State, for some time to come.

Statistics collected by the different county auditors, and forwarded to the last Legislature, show the insane of Indiana to number sixteen hundred to seventeen hundred. The population is not less than two millions, from which it would seem our ratio of insanity is less than that of some of the older States. If true, this is an interesting fact depending, possibly, upon the moral habits of our people, most of whom are engaged in agriculture.

I am the President, in common, of the Boards of all the so-called benevolent Institutions of the State, holding the same official relation to the Institutions for the deaf and dumb and blind, as to the insane. Those other Institutions are good of their kind, and ample for the wants of our population, but not, I presume, of special interest here. Our State, in the matter of maintenance,

has been liberal to the benevolent Institutions. For the insane we have not been compelled to run a cheap Hospital, but rather have made the effort to conduct a good one as economically as possible. It is gratifying that no charge of corruption has been brought against our insane Hospitals, or indeed any of our benevolent Institutions during my long connection with them. As between the main political parties, our State is a close one. The Legislature has been sometimes one way and sometimes the other; but while there have been fierce conflicts about other matters, the politicians have wisely let the State benevolent Institutions alone. For which all good people should be duly thankful.

Dr. KIRKBRIDE. I hope you will not omit to tell us something about what is being done for the good of the people that congregate in the District of Columbia, and for the army and navy of the United States. We all have a general interest in that.

The PRESIDENT. Before I say the little that may be said in regard to that matter, I will call upon Dr. Walker, who, I understand has not reported the progress made in Massachusetts in providing for the insane. Dr. Walker will need no introduction.

Dr. WALKER. Mr. President, I did not regard myself in the position to report for Massachusetts. I am sorry to see none of our Superintendents from Massachusetts are present to-day. All of them but one, I know expected to be here.

I believe Massachusetts is doing her whole duty to-day in regard to making provision for the insane. They have just completed a very large addition to the Taunton Hospital, in a wing of modern construction, and fitted with all modern appliances for the comfort and care of the insane. They are now building a Hospital at Worcester, in place of the old Hospital, to accommodate five hundred patients. It probably will receive when completed six hundred. That is under the charge of Dr. Eastman, and it is perhaps more than half completed.

At Danvers, in the eastern portion of the State, there is now building a large Hospital for the accommodation of four hundred; it will undoubtedly accommodate five hundred, and if finished according to the original plan, it will unquestionably be one of the best Hospitals in the country. Unfortunately the location selected was a very expensive one, and the Institution, instead of costing nine hundred thousand dollars, as originally contemplated, will require at least a million and a half, including the furniture. An act passed at the very close of the session required the commissioners to complete the building for one million and a half. This

will delay the completion of the Hospital for six or nine months, in the end doing no injury, as it will be all the better for being finished slowly. The Trustees of the McLean Asylum have already selected and completed the purchase of another and very fine location for that Institution; but I understand they have concluded to put off further proceedings in the way of building, or even completing their plans, for five or six years to come. In the Boston Hospital with which I am particularly connected, we have to-day two hundred and ten patients, just filling it tolerably full, and we keep at that number all the time, not allowing ourselves to go above it, and not being able to fall much below it. It is a small Hospital, erected in 1838, rather as a receptacle. I am glad to say in late years it has been improved to the very utmost of the power of improvement in an old structure like that. The patients I believe to be as comfortable as in any of the older establishments in the country. On the whole, sir, I am glad to report that Massachusetts presents no falling back. There is no hesitation among her public men in providing amply and completely for her insane, not only for to-day, but looking for a probable increase for the next ten years; and unless something unforeseen should happen to shock the public sense of the State, undoubtedly the good work of the last two years will continue to go on.

The PRESIDENT. The Association will be glad to hear, upon the subject before it, from the Rev. F. H. Wines of Illinois, a member of the Board of State Charities and Secretary of the Board, who is one of the gentlemen who has contributed to the aid and comfort that was certified to by one of the Superintendents from that State.

Rev. F. H. WINES. Mr. Chairman and Gentlemen, I certainly did not expect to be called upon for any remarks at this meeting. But having met the Association once before at Hartford, and having visited many of the Superintendents at their own Asylums, I may say that I am exceedingly glad to renew and to extend my acquaintance with a body of men for whom I have such a sincere and profound respect. I think that the members of the Association are very well informed as to the origin, history and present condition of the provisions made for the insane in Illinois. Nothing has been said, however, in regard to the Cook County Insane Asylum, I am happy to be able to inform the Association that this Institution, which in times past has been very much below the grade, and has indeed been an eyesore and a stench to many of us, although not yet up to grade, is nevertheless improving; and there is reason to believe that in the course of events, it will become equal or

nearly equal to our best State Institutions in its organization, management and discipline. I may also say one word respecting the future provision for the insane in our State. I would like to hear something said by the members of the Association as to the question how extensive ought the provision for the insane of a State to be? I once addressed a letter to all the Superintendents of Hospitals for the Insane in the United States and received an answer from the most of them. I asked this question, what proportion of the insane require and should receive hospital care? I was very much surprised, sir, to find that the Superintendents do not agree at all on that subject. Some said, every one; some said five-sixths; some, three-fourths; some, one-half. We shall soon have in Illinois, hospital provision for seven-twelfths of our insane. How far it is necessary to carry the development of our system of Hospitals, we do not yet know; but in all probability an agitation will be begun in the next Legislature, and will be continued, until it is successful for a fourth Institution to be located on the east side of the State. Whether it is necessary, as one gentleman remarked, to press this provision for the remainder of the insane of the State, in advance of other interests which may be deemed to be more important, is a question which is not yet settled. We have at least three thousand insane, and we shall have hospital accommodation for seventeen hundred and fifty of them whenever the Hospital at Anna is completed.

The PRESIDENT. What is the population of Illinois?

Rev. Mr. WINES. We estimate it at three millions. At the census of 1870, it was about two and a half millions. The people of the State are exceedingly liberal and are able and willing to appropriate money for charitable causes, if they can only have confidence in the economy, integrity and general judiciousness of the management of our State Institutions. In these respects we think that we can now challenge a comparison with the Institutions of almost any State in the country. The last seven years have certainly been marked by a great improvement. I am very glad to have been recognized by the Association, and to have had the opportunity of expressing to you my solicitude for your success in the noble enterprise in which you are engaged.

Dr. NICHOLS. If there is any other gentleman present who is officially connected with the management of an institution for the insane, either in the United States, or the Provinces of the Dominion of Canada, the Association will be glad to hear such observations relating to the primary question of our calling—the condition

and progress of hospital, or asylum provision for the insane—as he may be pleased to submit.

After waiting a few minutes without response to this invitation, Dr. Nichols said :

I hope that the members of the Association, who are familiar with the state of the Government Hospital for the Insane, will bear with me if I repeat some things which are already known to them. That Institution has proper accommodation for five hundred and sixty-three patients, and had seven hundred and fifty-three under treatment on the last day of May, or ten less than two hundred in excess of its capacity. I need not dwell upon our embarrassments, nor upon the necessity of enlarging the Hospital, before an Association that, last year, passed resolutions strongly condemnatory of the admission of a greater number of patients than the buildings of an institution can properly accommodate.

Two years ago the authorities of the Government Hospital proposed to erect a separate edifice for the female patients, and devote the present edifice entirely to the male patients. If that project is carried out, the female department will be surrounded by one hundred and seventy-five acres of land, and the male department by one hundred and eight-five acres, with water front for bathing, boating, &c., and the two departments will be separated by the public road that passes through the grounds of the Hospital. The Senate has endorsed this plan of enlargement by a handsome majority, and it has earnest friends in the House; but as this is known as the “economical year” of the Government, it is not probable that the appropriation necessary to begin the work will be made at this session. A precedent in our own experience leads us to hope that the appropriation will be made next year.

Perhaps it will interest the members of the Association to clearly understand the sources from which the large number of patients, under treatment in the Government Hospital, are derived. They are derived, 1st, from the army, which contains about twenty-seven thousand men, including officers; 2d, from the navy, in which there are about ten thousand men; 3d, from all the living men, estimated to be about seven hundred and fifty thousand, who have served in the army, or navy, regular or volunteer, and who are indigent; 4th, the population of the District of Columbia, which is estimated to be one hundred and sixty thousand; 5th, the transient poor insane, found in the district; 6th, the insane of the

Marine Hospital service; 7th, the insane of the Revenue Cutter service; and 8th insane convicts tried in United States Courts. The number of civil patients that are brought to the Hospital for treatment, from without the district, just about equals the number sent from the district to distant institutions. The proportion of indigents among the late sailors and soldiers of the regular and volunteer service, can not be approximately estimated, but it is, undoubtedly, large. It will be seen that the seven hundred and fifty patients under treatment at the Government Hospital, embrace the insane of nearly one million of our people, which is a ratio of one insane person to between thirteen and fourteen hundred of population. This is considerably less than the ratio of insanity to the whole population of the country. The district patients under treatment in the Hospital bear the ratio of one to five hundred and fifty of the population. This appears to exceed the ratio of insanity to the whole population of the United States; but the excess is, probably, more apparent than real. The Hospital is in the midst of a compact community, and every case is provided for and brought to light either by entirely gratuitous support, or the payment of a moderate compensation for board and treatment. Forty-eight patients were received from the army last year, or one to about five hundred and sixty-two of the men comprising that arm of the service. In speculating upon the causes of the annual occurrence of so large a number of cases of insanity in the army, we should consider, besides the bad habits and broken constitutions of many of the men who enlist in time of peace, and the climatic changes and exposures, and nostalgia, to which they are subject, the fact that comparatively few men make the army a life career, and that new uninured men are constantly encountering the trials of the service, while inured men are as constantly leaving it. It is a singular fact that may be referred to in this connection, that nostalgia was almost the only moral cause of insanity during the late war. Personal fear and the anxieties of intelligent and patriotic men respecting the issues of the great struggle, appeared to be insignificant factors in the production of the insanity that occurred in the army during that period. The causes were, in most instances, entirely physical. The Vice President and Secretary of the Association, who sit near me, intimate that I am expected to say something in relation to the extraordinary investigations into the management of the Government Hospital for the Insane, which has now been going on for three months. A large number of witnesses have now been exam-

ined by the Committee that has the matter in hand, (the Committee of the House of Representatives on Expenditures in the Interior Department,) and the members of the Committee have recently visited the Hospital, and thoroughly examined into its condition and management; and my counsel is of the opinion that the investigation is nearly, perhaps quite, at an end—that the accusers have produced nearly, if not all, the inculpatory testimony they find themselves able to create. The exculpatory testimony has mainly been confined to the refutation of the charges and testimony brought forward to sustain them. At least twice as many witnesses have volunteered to testify in favor of the management of the Institution, as it has been thought necessary to call. Many friends of patients and a considerable number of recovered patients themselves have volunteered to testify in behalf of the Hospital, but though their proffered aid is, and always will be, very gratefully appreciated, it has not been made use of, for good reasons that will occur to every mind present, except in the case of one distinguished gentleman, who did not hesitate to disclose the fact of his having had a relative under the care of the Institution, and most kindly pressed his testimony upon us. Two members of the Association have been called in the case, and the readiness and clearness of their opinions, and their candid demeanor with an entire absence of egotism or dogmatism, are thought to have made a most favorable impression upon the Committee. As the Committee has not yet reported, I deem it unsuitable to enter into further detail in relation to the investigation. The unfriendly and sensational press has published the unfavorable testimony, with gross exaggerations, and sent it from one end of the country to the other, and you have doubtless seen the most of it. The newspapers have manifested much less interest in the spread of the favorable testimony, and I have endeavored to keep my brethren of the specialty posted in relation to that, and hope they have received the papers I have sent them.

The Association is now ready for the introduction of other business.

The SECRETARY. The committee appointed to prepare resolutions in relation to the death of Dr. Bryant have requested me to read for them the following notice:

“As your committee to draft a memorial and resolutions in memory of Dr. Geo. Syng Bryant, deceased, we respectfully submit the following:

Dr. Bryant was born in Old Virginia in 1825, and died in June 1875, in full vigor of manhood. He was educated at Hampden Sydney College, and graduated at an early age, it is said with the honors of his class; studied medicine and graduated from old Jefferson, in this city, in 1845. Soon after he removed to Mississippi, where he practiced his profession very successfully for about ten years, up to the commencement of the late civil war, when he was appointed a surgeon in the Confederate service, and won for himself distinction in that service. At the close of the war he removed to St. Louis, Missouri, but was induced to leave that place on account of failing health, brought on by exposure during the war. He removed to Lexington, Kentucky, and soon made for himself a reputation as a man of more than ordinary ability; became an active and prominent member of the Kentucky State Medical Society, and won the exalted esteem of the profession generally throughout the State. His enthusiasm for his profession, his admiration for the masters of his science, his studious habits and his contributions to the various medical journals, all marked him as a man of no ordinary cast. As a gynæcologist he was distinguished in the West, especially as an operator and also as an inventor. With those with whom he was associated in the management of the Eastern Kentucky Asylum, from the highest to the lowest, all continue to speak of his uniform kindness and his unceasing efforts to make every one around him comfortable and happy. He will be missed indeed from our Association, from the Kentucky State Medical Society to which he was a contributor, from the profession generally where he lived, and among whom he had many warm admirers, and from society generally, therefore;

Resolved, That this Association tender their warmest sympathy to his personal friends, and especially to his widow, Mrs. Bryant, by whom he is missed more than by all others, and to whom he was so much devoted, and we desire that this memorial and resolution be placed upon our minutes, and that our Secretary be requested to forward to Mrs. Bryant a copy of the same.

R. C. CHENAULT,
W. M. COMPTON,
J. H. CALLENDER.

On motion, the resolution was unanimously adopted.

The SECRETARY. Dr. Denny has placed upon the table a number of anatomical preparations of the brain made by himself.

which he can more fully explain, and I suggest that he be requested to do so for the benefit of the members.

Dr. DENNY. Mr. President and Gentlemen, the design of this series of transparent sections, which have been conducted in a transverse and vertical direction through both hemispheres of the human brain, in their entirety, including the cerebellum, the pons varolii, and medulla oblongata, is to illustrate in a general way a method of preparation which affords the best facilities for studying its minute anatomy, and the variation of form and relation, in continuity, of the same part at different points. This plan includes the similar preparation and preservation of every section, in order of position from a single brain of any species. Such a complete series would form a valuable standard for reference, study and comparison, and would essentially aid toward the solution of obscure physiological, pathological and psychological problems.

Modern investigations to determine localized functions in the brain demand an accurate acquaintance with the minutest anatomical details, in order to guarantee their reliability. These sections were made in accordance with the method of Prof. Von Gudden, Superintendent of the District Asylum for the Insane of Munich, and mounted, after the processes employed for smaller objects, by Prof. C. Claus of the University of Vienna, whereby, for the first time, so far as I am aware, such large sections can be easily handled and rendered much more generally available for demonstration without endangering them.

I am indebted to these gentlemen for giving me, as a member of this Association, unusual facilities for prosecuting this work which I gratefully acknowledge. I had the good fortune to be able to examine the unrivaled series of sections of the brain at the District Asylum in Munich, by the courtesy of Dr. Gudden. This collection, embracing several thousand specimens of such sections from various species, contains one series of seven hundred complete sections through the human brain, (exclusive of the medulla, etc.) I am convinced that it would be of great advantage, in tending to shed more light upon the obscure problems of mental diseases—and so benefit eventually their treatment—should every asylum for the insane in this country preserve on file for reference similar series. No class of observers has the opportunity so fully as superintendents of asylums for the insane, of comparing diseased conditions of mind with pathological lesions of the brain. I recognize with pleasure the somewhat similar work undertaken by Dr. Gray.

THE PRESIDENT. It is understood that you submit these specimens for examination.

Dr. DENNY. Yes, sir.

Dr. GRAY. What is the thickness of the sections?

Dr. DENNY. I am unable to state mathematically, but very many of them are microscopically thin, so that they may be examined with a No. 4 Objective of Hartnack; they are necessarily mounted on thick glass on account of their large surface.

Dr. GRAY. I am very glad to see that Dr. Denny is engaged in that branch of pathological labor. We all appreciate its importance, as he has stated, and I am satisfied, as he has remarked, that the assistants of a great many institutions, if they had the appliances, might devote their time to advantage, and very properly, to such investigations. We have found a difficulty, recently, obstructing our progress, in being unable to get covering glass for sections so large. We have made a large number of vertical sections through the brain, and sectionalized the entire medulla. The sections of the brain are about the three-hundredth of an inch thick, and those of the medulla the eight-hundredth to the one-thousandth of an inch; the sections three-hundredths of an inch are sufficiently thin to be examined by the microscope. But there is no stand or stage, sufficiently large, or we have not been able yet to find one, to place them upon for examination. We are just about finishing a large stand and stage, which will receive a section five inches by four, or larger, and with the aid of illuminating mirrors, we undoubtedly will be able to examine those large sections, and indeed, we have made some examinations. Among a large quantity of covering glass I was able to pick out a few large ones. However, we are now in the way of getting them made especially for us. In a large section there is much less difficulty in following up nerve fibres and prolongations of ganglion cells. You can then go over the whole field with infinitely greater satisfaction, than under the older method of examining a large section by subdividing it, and then trying to unite those sections afterwards in your mind. With a stage large enough, and if large covering glass can be made, I have no doubt that sections, even thin enough for microscopical examination, could be transported from one institution to another, or presented before a class of students to advantage. For instance, an institution finding a class of interesting cases could make sections, and they could be transported from place to place, or to a meeting of the Association, or be taken to a place of general deposit of such specimens, forming a museum, which any

gentleman could apply to, and where he could visit and make any investigation that he chose to. The Army Medical Museum under Dr. J. J. Woodward offers such a disposition of specimens and centre of study.

The sectionalizing of the medulla requires about eight hundred sections. We have done that, and I think you have stated, to do the brain rightly, it would probably take seven hundred—that would be too moderate an estimate, it will take fifteen hundred, or even more—still, I have no doubt it can be accomplished, and will be, by many persons who devote themselves to the subject, having this peculiar skill. We have now a very skillful manipulator in Mr. Deecke, our present worker, and I have no doubt he will be able as soon as we are thoroughly prepared with stand, &c., and some other little appliances, to sectionalize the brain entirely through; and as you have remarked in regard to the views of distinguished gentlemen abroad, it probably is the most satisfactory, and most thorough manner of studying the anatomy of the brain, that could possibly be followed. With reference to the photographic pictures, it probably will be difficult to get a photograph of an entire section on one plate. The size required would be so great that it would demand a plate too large to show all the minute structure, without some other appliances. This can be accomplished by the use of the magic lantern, by throwing the image on a screen. It can be amplified in this way twenty thousand diameters, and still retain such distinctness as to enable us readily to pursue the study of minute anatomy and show most of the morbid conditions.

Recently, in the case of an epileptic patient in making the post mortem and examining the brain, we came upon a spicula of bone which had projected into the substance of the brain over an inch. We cut down upon it, breaking the edge of one of the section knives. In this case we were able to make vertical sections, one after another, towards the point of injury, and to examine it in its details with a thoroughness that no scalpel would have rendered possible. We also took photographs that will show the extent and character of the injuries inflicted, and the degeneration which occurred immediately around the spicula, and probably produced the great number, amounting to hundreds, of convulsions that took place, for years, before death. In regard to the photographs themselves, I suppose you have had experience as to the processes which give the greatest degree of distinctness and definition. We have made various arrangements to perfect the photo-

graphic representations, and I think we are able to take large sizes with the same distinctness as the small ones, and perhaps even greater. There is no difficulty in taking them to twenty inches in diameter; but the plate upon which the impression is received must, of course, be located at a long distance from the microscope. In taking the largest sized picture, the focal distance was forty feet. To properly focus the microscope at this distance, we were obliged to arrange a suitable adjusting apparatus. This was as successfully accomplished, and the focussing as nicely adjusted, as if the person were sitting by the microscope. But, as you all understand, these things are mere matters of mechanical detail, and undoubtedly mechanics will accomplish all that science demands in the history and progress of science. I am very glad indeed that you have engaged in that work.

Dr. EVERTS. I would like to ask Dr. Gray one question of public interest. Does the State of New York, in appointing a special pathologist, authorize the use of all persons dying in the Hospitals for post mortem?

Dr. GRAY. I might remark this, that we have never had any difficulty about it, more persons by far ask us to make the examination than object to its being made.

Dr. WALKER. Mr. President, I suppose it would be very convenient to take a short recess, so that the members may converse with Dr. Denny and look at his specimens. I understand that the Committee on the Treasurer's Accounts is ready to report. I would ask for the report of that Committee, now.

The Committee to audit the Treasurer's account made the following report, which was adopted:

Your Committee respectfully report that they have examined the accounts of the Treasurer, and compared them with the vouchers, and find them correct, and that there are \$161.60 in the Treasury. They also recommend an assessment of five dollars on each member for this year.

Respectfully submitted.

J. H. WORTHINGTON,
H. F. CARRIEL,
D. R. WALLACE.

The Association then took a recess of half an hour.

On re-assembling Dr. Gray read a paper on "Mental and Physical Symptoms of Cerebral Disorders, and their Relations with Certain Conditions of Insanity."

Dr. BALDWIN. I have been very much interested and instructed by the paper just read by Dr. Gray. There is one point, however, upon which I wish to be informed, viz: Is the line of treatment, as characterized by the symptoms, so clearly defined as to preclude blood letting? In the twenty-five years that I have been engaged in my profession, the two remedies that I have seen the most prompt and gratifying results from, have been the judicious use of the lancet and the insertion of morphia; and where I have found a decided determination to the brain, accompanied by a full, hard pulse, I have used the lancet with the most gratifying results. I can recall a case of mania now, in which the maniacal symptoms continued for months, and the prognosis was daily growing more unfavorable. There was evidently great determination to the brain, as indicated by a full, hard pulse, face turgid and red, eyes suffused, and the whole appearance indicating apoplexy. Under a liberal abstraction of blood, and appropriate treatment following, this patient rapidly improved, and made good his recovery.

The PRESIDENT. The Chair would ask Dr. Baldwin if he has found many cases in which venesection was necessary?

Dr. BALDWIN. I have only had occasion to use the lancet in *three* cases since my connection with the Asylum, and only a limited number in private practice, in which it was called for. In one case there was some precordial pain, and gastric disturbance, pulse full and hard, and swimming and dizziness whenever the patient raised his head, and evidently great determination to the brain.

Dr. GUNDRY. May I ask whether the cases were attended with pain?

Dr. BALDWIN. Yes, one with precordial pain and throbbing, and dizziness in the head. But you will observe of the three cases requiring the lancet, two were premonitory of apoplexy, and the remedy was used to ward off the attack. In the third case the lancet was used during the apoplectic seizure, and I thought the abstraction of blood ameliorated the symptoms, as indicated by the breathing and complexion. This patient, after remaining in a comatose condition for nearly thirty-six hours, roused up and got about his ward again. There was partial paralysis of the left side, which gradually wore away, and some months later he died in another seizure. I was under the impression that possibly hæmorrhage to some extent had taken place in this case.

These cases possess peculiar interest in view, not only of the suddenness and alarming import of their character, but also of the promptness that is expected of the physician as to his line of treatment. But as I now understand Dr. Gray, where you have hæmorrhage, the symptoms are those of depression, and are to be treated accordingly.

Dr. ENSOR. I have nothing to say, I believe, except to express my approval of the paper read by Dr. Gray. There is one point, however, unless I misunderstood the Doctor, upon which I must differ from him. I understand him to say that softening is always the result of injury to the brain substance; that it always has for its starting point localized hæmorrhage, from whatever cause, forming a clot, around which softening begins. In this particular I think the paper can not be supported by facts. I think that while a clot or local hæmorrhage may, and doubtless often does serve as a nucleus for softening, yet the causes for this disease have a far wider range. Nay, more, I believe that cerebral hæmorrhage is more frequently the sequel than the cause of softening. We know that many persons fall down and die suddenly in a fit of apoplexy, or epilepsy, or palsy, and how often does the autopsy in such cases reveal a recent extravasation of blood, as a clot, and that too in the very locality where the softening has existed for a long time.

I regard imperfect brain nutrition, whether from some defect in the circulatory or digestive systems, one of the most fruitful causes of softening. The want of wholesome and nutritious food, especially when continued, as is usually the case, with living in a vitiated atmosphere for long periods of time, as too often falls to the lot of the poorer classes in our large cities, where they are huddled together like sheep in the shambles, year after year, with but little to eat, and constantly breathing an atmosphere that would almost stop a steam engine; the long continued excessive use of alcoholic stimulants, inflammation, congestion, prolonged hyperæmia or anæmia, overwork or excessive taxation of the brain, if long continued, must, I think, all be regarded as causes of brain softening. I have not the disposition nor the material at hand to go into any lengthy discussion of this subject. I think the paper a valuable one, and trust that it will be published in the *Journal* that we may all have the benefit of perusing it.

Dr. GUNDRY. I am glad that the Doctor has brought this matter of observing the temperature of the patient, so forcibly to our notice, though we may all differ as to the importance of the result

in certain given cases; but none of us who have employed it long will differ from the opinion that it is the best check in the hands of one who can always carry on the practice himself. Through all our course of treatment it is the most unerring guide to detect the accuracy of other observations, and I think should be employed largely in every institution in the country. You look over the series of observations, and I think you can say at once whether they have been marked by accuracy or inaccuracy, and your attention is called to the point which you look up and re-examine, and you at once verify or disprove the anomaly that may occur. It may be stated, where you have a low or an increased temperature, or any great increase of temperature, and have great increase of the pulse constantly, that you will have a dangerous case, a very dangerous case, or disorganization of the cerebrum. I think that is clear where there is in any way a great variation between the temperature and the circulation, no matter in what way, if the temperature runs up very high, and the circulation does not, or vice versa, in either case you have a very serious condition of affairs, and I think you will find pathologically you have a very serious case to treat, and it behooves you to watch very closely.

I can hardly agree with the Doctor in so exactly defining the mental condition arising from the change in the brain, although I think that is a step in the right direction. I doubt where you have a clot whether you have any mental symptoms, whether the real point is not in the depuration of the blood, where you have the cerebrum itself involved whether the case is not the other way. If the clot occur in the meninges, there you have a great variety of symptoms occurring, arising partly from the locality, but more particularly from the individual, from the essence, from the ego, made of the brain, the mind, the soul, etc. You cannot tell where one leaves off and the other begins. Now there must be something besides what we see in the structures of the brain, the quality of which, for want of a better word, I would designate as the fineness, which makes each of us different from another. It is the quality of the fineness, which makes the personality of man, and which lies at the bottom of all his mental actions, that must have something to do with the pathological condition involved, for I take it you can hardly define the line where the one begins and the other ends.

With regard to treatment, although I should arrive at it from quite an opposite direction, and in a very different manner, I very cordially concur with the Doctor. I think, in all these cases, as a

rule, stimulation is the point, but I must say that I have been guided in just the opposite way; the higher the temperature the more rapidly I have thrown in the stimulants, though I have lost cases where there has been high temperature, and you may expect to lose cases. I am not aware that I have lost more than others.

I can very well conceive how bleeding may occasionally seem to do good, simply from this fact, that bleeding has no other effect in any case than as a relief of extreme pain; that as an anodyne it will be useful, and when you bleed a person now-a-days, you will have to take good care to sustain him afterward, and to neutralize everything about the bleeding. I can very well understand how the bleeding may occasionally appear to do good, and I know from my little experience, that bleeding is quicker than opium, and is merely for the relief of pain, not including a few cases of pneumonia, where you can imagine the bleeding may act as a mechanical agent. I can conceive of no therapeutic influence tending to good in bleeding. I think the main therapeutic effect of bleeding in a man, is as a mere anodyne, inasmuch as it is difficult in these cases of apoplexy to tell whether it is a clot, whether it is simply impoverishment of the blood, or whether it is not a neuralgia, while the nerves are shrieking for more blood.

The PRESIDENT. The time at which the Association resolved to adjourn has arrived. The Secretary, on behalf of the Committee on Business, desires to announce the order of business for the remainder of this day and to-morrow morning.

The SECRETARY. The order of business for this afternoon is to visit the department for the insane of the Philadelphia Almshouse. The meeting in this room this evening will be for the purpose of hearing Dr. Ray's paper. Then for to-morrow morning, leave the Continental Hotel at 9 A. M. in omnibuses, and go directly to the department for males of the Pennsylvania Hospital for the Insane, and hold a meeting there at 10 A. M.

Dr. KIRKBRIDE. I would say one word. It was intended, at the first meeting, to invite the members of the medical profession of Philadelphia, to attend our sessions. This either has not been understood, or has been omitted in the minutes. It would be well to have it understood as having been done, or intended to have been done yesterday.

On motion, the Association adjourned.

The members spent the afternoon in visiting the department for the insane of the Philadelphia Almshouse, under the conduct of Dr. Richardson.

The Association was called to order at 8 A. M. by the President.

Dr. Ray read a paper on Criminal Responsibility of the Insane.

An invitation was received from the Academy of Natural Sciences, to visit and examine the extensive collections in their room, which was accepted and referred to the Committee on Business.

On motion, the Association adjourned to 10 A. M. Thursday.

THURSDAY, June 15, 1876.

The Association was called to order at 11 A. M. by the President, at the department for males of the Pennsylvania Hospital for the Insane.

DR. KIRKBRIDE. Before proceeding with our regular business, I wish to introduce to you a gentleman who is known by reputation to every one of us; one of the founders of this Association, its second Vice President, a man who by his long life of usefulness has endeared himself to every member of our specialty, and particularly to the people of the State of Ohio.

I introduce to you Dr. William M. Awl, of Columbus, Ohio. (Applause.)

There was something said the other day with reference to comparatively young members of the specialty as being living "Nesters," but I am now happy to say, here is a real live Nester. He is one that you may all honor as such. He has taken the trouble to come on to attend this meeting, and to visit our great Centennial Exposition, and I think has honored us as much as himself by doing so. I shall be very happy to introduce you personally to him on a future occasion.

THE PRESIDENT. Dr. Awl, the Association will be very happy to hear any remarks you may be pleased to make to-day, in answer to your introduction, as well as in connection with the discussion that may take place.

DR. WM. M. AWL. To be thus recognized, my dear sir, is to one a matter of moment. I can scarcely tell what is best to be done, or what is best to be said. Mr. Rash, the Minister to Russia,

when he was in attendance at the Court of England, relates that the King on a certain occasion toasted the Duke of Wellington to his face, and the question was, as to the proper manner in which the Duke should receive it. It was decide by the Duke himself, who received it in dignified silence, when asked his reason for so doing [said, "Was it for one to bandy words with the King?" Well, it is certainly not for me to bandy words with the Association. But as I am not a King, but simply a Republican, and as I am not a military man at all, having never had anything to do with the military profession whatever, and do not want to have anything to do with it, and as I am surrounded by so much that impresses me strongly, and appeals to the strongest feelings of my nature, I can scarcely be quiet, I can scarcely find words to return to you, in a suitable manner, the thanks I owe you—the officers and all you gentlemen—who now represent this specialty in the great cause of human benevolence. I am satisfied that it is making great progress in our country. When I first commenced this matter, to which our friend Dr. Kirkbride has referred, we were but a handful of superintendents. Dr. Woodward, Dr. Bell, Dr. Butler, and Dr. Ray, who is now on my right hand, Dr. Kirkbride and myself, and a few others, got together in a volunteer effort to do something to promote this special cause of science and benevolence; and I feel happy to say that the thing has made great progress—great progress in a scientific and political world; that much more has been done now for the insane throughout the country, than we then dared to hope would be accomplished in the last forty years. We had to resort to a great many expedients in those early days. When I first went to Kentucky at that time, I found a man chained to the floor by the leg; I had him released; he was very happy. In that way we commenced the introduction of what we call the modern system of treatment—treatment of the insane by mild measures, as a general thing, that I understand is being still carried out with great success, and meeting with what is best of all, the profound approbation of the country. Institutions of benevolence of this character are now in existence in nearly every State of the Union, and they are doing a great work; and if they are not interfered with by untoward circumstances, especially by politics, they will probably go on with great success in the generation to come. The public mind is prepared to sustain these institutions largely and liberally, so long as they feel satisfied that the moneys which are appropriated, are applied to the causes for which they are intended.

If the public once gets it into their heads that the money is misapplied or extravagantly used, there will be an end to the public appropriation very speedily. I caution my brethren against anything of the kind. Let everything be done for the insane that is possible, and that is good for them, and let everything be done decently and in order. Let every prudent and proper facility be given to the public, to see in what manner the insane are cared for, and that the appropriations are properly expended, and my word for it, brethren, (and I call you brethren and delight to do so,) these institutions will be amply sustained in all our States; and the little trouble that now and then comes up, will be put down by the public press, and give a public sentiment which I earnestly hope and pray for.

I return you my sincere and profound thanks for the manner in which you have received me.

The PRESIDENT. The first business in order is the continuation of the discussion of the paper read yesterday by Dr. Gray. It has been suggested to the Chair that the members of the Association should be invited in a body to continue the discussion, and not individually, as is customary, the fear having been expressed that there would not be time for the Association to proceed in the usual way; and unless the Association so orders, the Chair will request any member who has any observations he wishes to submit in relation to the important paper read by Dr. Gray, that he will now submit them.

Dr. RANNEY. I was much interested in the able paper read by Dr. Gray, and shall be impatient till I can read it in print, but especially interested with regard to the infrequency of general softening of the brain. I have quite often heard the opinion expressed of cases placed under my care in hospitals, or about which I have been consulted outside of the Hospital, presenting some points, rendering diagnosis not quite easy, that they were cases of softening of the brain; while I believe with Dr. Gray that softening of a general character is a rare disease, I have met with two cases, however, in which softening was diagnosed during life, and verified by post mortem examination of the brain. One of the persons so afflicted was a mover of pianos, and the other of general furniture, and both had been accustomed to heavy strain in lifting, while pursuing their vocation. One symptom common to both of these cases was permanent flexion of sets of muscles, in one case flexing the forearm upon the arm, and the thighs upon the body. These symptoms I do not remember to have seen much noticed by authors I have read.

A MEMBER. How did it occur?

Dr. RANNEY. I think this symptom occurred early in the course of the disease, coincident with the first indications of mental impairment, which were a moderate degree of enfeeblement of mind and mental hebitude, occasionally varied by a mild delirium, and proceeding without other symptoms or incidents of importance till death ensued. The post mortem examination revealed the interior of the brain, and the greater part of the cerebral mass greatly softened in consistence, pultaceous, but in neither did we find, (one of the brains was examined by an experienced pathologist and skillful worker with the microscope,) embolism, thrombosis or evidence of hæmorrhage.

Dr. CURWEN. I want to say a word just at this place. If the Doctor will look into Abercrombie he will find that that symptom is marked, especially in reference to softening of the brain. He cites one or two cases of the same kind.

Dr. COMPTON. I think if he looks into Schroeder von der Kolk's book he will find the same thing laid down.

Dr. RANNEY. I am very glad to know that further testimony can be found upon that point. The first mentioned author I have not read, and the second not very carefully.

[NOTE.—Since the foregoing discussion took place, I find upon looking over the works treating of cerebral softening to which I have access, that more importance is given to permanent flexion of certain muscles or sets of muscles as a diagnostic symptom of general softening of the brain, than I remembered at the time. R.]

Dr. HARLOW. I would like to inquire of members if they have noticed softening of the brain in all cases of paresis.

Dr. RAY. I think I express not only my own, but the sentiment of the Association in thanking Dr. Gray for calling our attention to a class of cerebral affections which really have not had from us that degree of attention which they amply deserve. One, and probably the principal reason is, that in our specialty we have to deal chiefly with a form of cerebral disease that has not originated in any of these affections, and consequently we have been disposed to treat them with a degree of indifference. We ought certainly to make use of every possible opportunity to remedy our defects in this particular. The community is apt to consider that they who have medical charge of persons laboring under mental disease should know all about every other form of cerebral disease. We are called upon, not unfrequently, in one way or another, to pronounce opinions in reference to those other forms of cerebral dis-

orders, and it is very important that we make no mistake in diagnosis or prognosis; for an error of this kind might result very likely in much harm. Questions arising out of these lesions of the brain, in regard to which our opinion is requested, not unfrequently come up in courts of justice, and the duty of answering them can not well be avoided. In a suit at law in this city, not long since, the counsel on one side were disposed to make a point in favor of their client by alleging that he was laboring under softening of the brain, and several medical witnesses were put upon the stand and testified to that effect. It was obvious enough, however, to one well acquainted with that form of disease that there was no softening in the case, and the result showed that this opinion was correct. That phrase "softening of the brain" is probably one of the most abused terms in all our nomenclature, having served, and still serving, among general practitioners, if not among ourselves, as a sort of *omnium gatherum* of all sorts of cerebral affections. Now we know, if we know anything about the pathological anatomy of the brain, that softening is rather a rare form of cerebral lesion; that among the post mortems which we make in our Hospitals it is one of the rarest things to find that sort of lesion described by writers of authority as proper softening. This common misapprehension of the true nature of that affection is certainly surprising, considering that it is so accurately and circumstantially described in some of our leading books. I am not aware that the cerebral lesion on which general paralysis depends has been attributed to softening by observers of any authority, at any rate, I have never observed it myself. In fact we may have almost any other lesion rather than that. What the pathological condition is, exactly essential to general paralysis, we as yet, I apprehend, know very little about. The scalpel has done its perfect work, and it is now to the microscope, under the guidance of such observers as Drs. Gray and Kempster, that we are to look for light upon this subject, while I am unable to subscribe to the exact and absolute truth of everything that Dr. Gray has said, it is not because of any positive evidence to the contrary, but because my own experience does not go to that extent. I think he is correct in the idea that most cerebral affections originate in lesions comparatively local and circumscribed. Still in these very acute forms of cerebral disease which pass under the name of acute delirious mania, attended with high maniacal excitement I apprehend that after death most of them certainly would show nothing more than general congestion without definite or special local lesions. The therapeutics which

Dr. Gray announced, I suppose will be approved by all of us. Few, I imagine, will be disposed to differ from him in his opinion of the insufficiency or impropriety of depletion, even in those forms of cerebral lesion which look the most formidable, and which, forty or fifty years ago, seemed most imperatively to demand it. Still, I think, we should be careful not to make the rule absolute. In cases of threatened congestion and of some of these forms of disease which pass under the name of apoplexy, we may sometime prevent farther mischief by seasonable depletion, either local or general, carried to a judicious extent. The main point, I apprehend, is to use it seasonably, for the time will speedily pass when it can be of any advantage.

DR. GRAY. I would like to add a word in regard to softening in connection with paresis. The remark that I made was that paresis was often denominated by physicians softening of the brain. It is true that in the advanced stage of paresis there is often very extensive degeneration or breaking down, but the particular remark, to which he referred, that I made, was, that it was not at all uncommon with ordinary practitioners to designate all cases of paresis as cases of softening. In regard to the other point to which Dr. Ray refers, of the initiatory stage of most cerebral diseases I did use the word *most*, with a view of not embracing all, as Dr. Ray has suggested was probably my intention. I have no doubt there are cases of insanity that commence with involvement of the entire meninges, and other cases that commence in an involvement of the circulatory apparatus of the whole brain to such an extent that it may well be called a congestion; and those cases progress with very violent symptoms—such cases as were designated at one time by Dr. Bell, as Bell's disease, are the ones to which I refer. I remember a paper by Dr. Ray, upon that class of cases, years ago. I have no doubt that they commenced in that general and universal manner, and as a general rule, they died even in a very brief period. In each case an autopsy showed the universal involvement of the meninges and the brain tissue, but I think it is true, as a general thing, that the disease commences in circumscribed areas.

Not very long ago we had a case of that character, where the symptoms were very acute, and the person ran down with great rapidity, and died in a few days. Many of the symptoms seemed to be those of blood poisoning, as you will see in typhus, and he rapidly passed into a very marked typhoid condition. An examination of the blood immediately after death, that was contained in the vessels and in the heart, revealed the fact that it was filled with bacteria;

the whole mass was in the same condition. That was not the only case in which we had thought of examining the blood immediately after death, but the only one in which micrococci were found. The starting point was a partially softened thrombus in the left pulmonary vein, showing that the bacteria were introduced through the respiratory passages

Dr. WALLACE. Mr. President, as I have not heard an answer to the doctor's question, I would ask Dr. Gray if sclerosis of the brain, is not much more common in diseases of the brain, than softening?

Dr. GRAY. Sclerosis is essentially connected with paresis. There is distributed softening often in paresis from the repeated hæmorrhages, but these hæmorrhages are announced usually by the slight epileptiform seizures. Many cases of paresis die finally from apoplectic congestion or hæmorrhage, but softening is not an essential condition, it is only one of the occasional incidents in connection with the progress of the disease.

There are portions of the brain atrophied in paresis. The French consider that it is mainly a peri-encephalitis, that the whole surface of the brain is in a state of peculiar chronic inflammation, as Dr. Ray has very properly stated. The real pathology of paresis is something that we do not know as much about as we might. It is a difficult subject to follow up, from the fact that we only get the advantage of a post mortem, after a series of consecutive degenerative processes. It is not fair to infer from a list of them certainly, what tissues they commence in, or extend to, but the result is death.

Dr. KEMPSTER. Mr. President, Dr. Gray's remarks relative to the case in which bacteria were found in the blood of an insane person immediately after death, attracted my attention as I have had quite recently a similar experience. Shortly before leaving home to attend this meeting I made a microscopic examination of the cerebral tissue of an insane person who had been dead but a few hours, the blood squeezed out of the cerebral vessels was filled with bacteria, having two and some of them three joints, blood from the vessels of the heart also contained bacteria. I am unable to explain the presence of these objects so soon after death. The causation of localized brain softening and its pathology is a subject that has interested me. I wish to speak of one point which Dr. Gray has called attention to, and which he recognizes as an important element in the pathology of local softening. Some years ago a French physician, (Charcot,) called attention to

"Miliary Aneurisms," which he had found in cases of cerebral hamorrhage, these aneurisms being found on the smaller cerebral vessels. In every case of localized softening, (thirteen I think,) that I have examined, I have found the remains of a ruptured miliary aneurism in the softened spot. The softened material is first removed by allowing a stream of water to pass over the surface of the tissue, it is then placed under a low power, and, as before stated, I have found the ruptured sac of a miliary aneurism in each case thus examined. The disintegration or softening appears to depend upon rupture of the aneurism, for it is not an infrequent occurrence to find miliary aneurisms in the brain tissue without any change in the structure of the adjacent tissue, other than the discoloration which almost always appears about a miliary aneurism. Miliary aneurisms are often found on the surface of the convolutions. On removing the pia mater, portions of the margins of a convolution sometimes adhere to the membrane, and the convolution appears as though a rat had gnawed it; by carefully examining the tissue adhering to the membrane, I have found in it a ruptured sac, and consequent softening of the brain tissue; this rat-gnawed appearance is not always due to ruptured miliary aneurisms, being sometimes due to inflammatory states. These aneurisms are liable to be overlooked in an examination made without the aid of a lens, but they can be easily discovered with an ordinary pocket lens, their usual size being about one forty-fifth of an inch in diameter, sometimes larger and sometimes smaller. The softened spots are also quite minute, in certain cases not exceeding two, three or four times the diameter of the aneurism. When the brain has been subjected to the process of hardening, necessary to prepare it for further examination, and thin sections of the tissue are made, they sometimes contain several openings, upon the margins of which portions of the aneurismal sac can be seen with some of the debris of disorganized tissue, but it is always best to look for miliary aneurisms in the fresh tissue. I think that whenever we find softened brain tissue, particularly if the softening is limited in extent, the pathological state may be determined, or rather the cause of the softening may be determined, by carefully searching for a ruptured aneurismal sac. In all cases of brain softening we should always look for miliary aneurisms. The case to which I alluded, when speaking of bacteria was a case of general softening of the brain; he presented during life the symptoms alluded to by Dr. Ranney, that is, the muscles of the arms were contracted. The brain was extremely soft, almost fluid, and in ex-

examining for miliary aneurisms, I found them in large numbers upon the floors of the lateral ventricles, and indeed throughout the whole of the brain tissue, with the exception, that they did not appear so numerous upon the surface of the convolutions. In this case the disorganization of tissue was so great that specimens placed under the microscope presented but few of the characteristics of brain tissue. When the debris was removed from a part of the brain, by placing it in a bowl and covering it with water, then gently rocking the bowl to and fro, putting on more water and repeating the rocking process until the soft part was removed, miliary aneurisms and ruptured sacs were found in large numbers. Another point relative to local softening. There are certain cases of softening produced by plugging of the capillaries, thus depriving the portions of the brain tissue beyond the plug of its nutrition and causing disintegration of the cerebral tissue and consequent softening. I have observed this condition most frequently in patients who had been debilitated and anæmic; the plug is formed by the adhesion of white blood corpuscles which are carried onward by the current until they enter the capillaries: they may be found usually at the point where the vessel branches, firmly wedged into the vessel, sometimes occluding one branch only, and sometimes occluding all the branches. The plug at this place forms a nidus around which the tissue sometimes softens, and the plug preventing the flow of blood to parts beyond, of course, prevents them from obtaining the nourishment necessary for the healthy action of the brain, and we find local softening of the parts supplied by the capillary, although there may be no extravasation of blood. In the softened mass the shrunken capillary is sometimes found; it then looks like a shred of connective tissue, but may be easily distinguished from it. These points may be familiar to the members of this Association, but as they are not mentioned in Dr. Gray's paper, it occurred to me that it might be well to mention them, as sometimes, explaining the cause of local softening.

Dr. KILBOURNE. I would like to ask Dr. Kempster with regard to his observations upon brain tissues, and especially in regard to that particular pathological change which he terms miliary aneurism, whether it may not result entirely from embolic stoppage, from the plugs themselves, or whether in other words, the embolic matter stopping the circulation, may not produce that amount of degeneration and weakening of the muscular tissues of the vessels sufficient to cause dilatation of the same, and be readily

mistaken for aneurismal phenomena? I am not unaware of the presence of miliary aneurisms in many portions of the body, and presume there is scarcely an intelligent post mortem made where miliary aneurisms or infarctions may not be discovered in either the liver, kidneys, intestines or lungs—indeed their presence is more commonly observed than otherwise—yet the tone of these organs often remains unimpaired. They are to be seen also in the brain, spinal cord, or their investments, and in given tracts doubtless are responsible for the impairment of its healthy operations. It can not be denied, however, that there are lesions of the brain, seemingly of much more serious import—a tumor, for example, as large as an orange, pressing back the anterior lobes of the brain to the extent of its accommodation—and yet followed by no mental perturbation, or loss of any of the faculties of the mind whatever. This I have personal knowledge of, as an autopsic revelation, startling as it is real: the previous history being well known to me also.

The records of extensive injuries of the brain, followed by more or less complete reparation are numerous, and doubtless familiar to all.

In an interesting article by Dr. Gray, in the last number of the *JOURNAL OF INSANITY*, on the "Reparation of Brain Tissue after Injury," several striking cases were given, demonstrating the power to completely restore loss of structure in that organ, which included, of course, not alone the nerve elements, but the neuroglia, or connective tissue of the brain and its circulatory apparatus.

Since then the brain, or certain parts of it, is capable of recovering its integrity when so deeply wounded, is it not an interesting question to determine how far, or to what extent these miliary lesions may extend, without producing permanent impairment of this organ—to what degree, too, they are responsible even in temporary perversion of its functions?

I was very happy to listen to a portion of the valuable paper of Dr. Gray, and to the remarks of others who have made microscopical research in this important field of inquiry, and I hope these investigations will be continued until more light is thrown upon this obscure subject, and will be prosecuted too, with that clinical exactness and regard for truth, that will enable us ere long, to entertain clearer views as to the real nature and true pathology of mental disease.

Dr. GUNDRY. I wish to ask a question of Dr. Kempster, as I think it was Dr. Kempster, or Dr. Gray, or both, who alluded to

cases of softening. Did I understand them correctly, to say, that in cases of general softening, bacteria were found in the blood? I wish also to ask whether they found bacteria in other forms of disease, cerebral or otherwise.

Dr. GRAY. I did not mention it in connection with softening, but in a case of acute mania known as "Bell's disease."

Dr. KEMPSTER. I alluded to the fact of bacteria being found in connection with a case of softening.

The PRESIDENT. How often have they been found?

Dr. KEMPSTER. It is not unusual to find them in the tissues during warm weather, from sixteen to twenty hours after death, and after a somewhat longer period of time has elapsed, in cold weather. I can not say how often they are found. It was the early appearance of these objects mentioned, that attracted my attention.

Dr. GUNDRY. You said in post mortem?

Dr. KEMPSTER. In the other cases spoken of, they were not found immediately.

Dr. A. E. MACDONALD. The Institution under my charge, from its nature and from the fact that so few patients are claimed after death by their friends, has given us an opportunity of making a large number of autopsies; and among them we have found a great many cases of so-called softening of the brain, or paresis. To answer in a general way the questions which the gentlemen have asked, I may say that the point in these autopsies which has particularly impressed itself upon me, has been the diversity of the pathological conditions found. Cases manifesting almost analogous symptoms, and terminating at apparently about the same stage, would after death show an entire difference in the lesions. As to the question whether or not softening of the brain is characteristic of, or ordinarily found in cases of general paresis, I may say that my experience is, that more commonly the opposite condition is found, especially if the autopsy of the patient be had during the first or second stage. In the third stage, as Dr. Ray has said, after epileptic seizures have been numerous, we may sometimes find considerable softening, but prior to that time, I think the opposite condition is more frequent.

Dr. GRAY. I would like to ask Dr. Ray some questions. The remarks of Dr. Ray were very important indeed, with reference to our familiarizing ourselves with these cerebral conditions, and I would like to ask him whether in his large experience, in connection with the disposition of property, and other cases where he

has had the opportunity to go upon the stand as an expert, and give expert opinions, whether he has not found his knowledge of these cerebral conditions a very important element in connection with determining such cases?

Dr. RAY. In the class of cases alluded to by Dr. Gray, some knowledge of these pathological lesions may be reasonably expected of the expert. As a matter of fact, however, I may say that the question of mental soundness or capacity is very seldom determined in our courts by the physical condition of the brain, but rather, mostly if not entirely, on those things which involve an expression of mental condition. It is what the patient did and said, how he acted and how he did not act, under certain circumstances which determines the final decision. A great deal of pathological knowledge, I admit, has sometimes been squandered on questions of this kind. On one occasion one of the experts embodied his opinion in a pretty large volume in which the whole subject of the pathological anatomy of the brain was discussed. But I imagine it had very little influence on the decision of the court, although very satisfactory to persons professionally interested in the subject.

Dr. GRAY. The particular point of my question was this, whether the judgment of the expert was not influenced in giving the opinion, and in interpreting the peculiar conduct of the individual by the probable condition of the brain?

Dr. RAY. Unquestionably the existence of pathological lesions would furnish corroborative proof of conclusions drawn from the conduct and conversation of the party.

Dr. BALDWIN. A case came under my observation, exhibiting to an extraordinary degree, a destruction of brain substance, a negro man receiving a blow upon the nose, in a drunken frolic. When I arrived the hæmorrhage had stopped, and supposing it a trifling affair, I went away. The next morning I was surprised to hear of his death. I was then summoned to make a post mortem. In removing the brain we found the whole anterior left lobe of the cerebrum in a state of softening, and also a spicula of bone, fully an inch and a half long, and about the size of an ordinary sewing needle, coming from the frontal bone, about the middle of the inner surface of the left superciliary ridge, and still attached, and projecting into the brain substance. Upon inquiry I learned that nearly a year previously he had received a kick from a colt upon the fair grounds, which doubtless inflicted this injury. In the course of the examination we found a fissure or slight crack in the

ethmoidal plate, and a small clot of blood evidently the result of the blow upon the nose. The opinion I gave, was that the latter undoubtedly was the immediate cause of death, but what would have been the result in a sound and healthy condition of brain, I was not prepared to say.

Dr. CALLENDER. I was deeply interested in Dr. Gray's paper read yesterday, touching, as it did, a subject of great and increasing importance, indeed an indispensable branch of inquiry to alienists. We are frequently called to give opinions as to the mental lesions and disorders accompanying these demonstrable cerebral injuries and lesions. I am now under subpoena to give testimony as to the sanity and capacity of a person to devise property, the chief feature of whose case is extreme deafness, dependent on the failure of the auditory centers, and a point to be urged is whether that condition could exist for a long time without necessarily involving other lesions tending to impair the mental integrity. Dr. Ray has justly remarked on the character of the irrelevant matter that lawyers so often introduce into medico-legal cases touching insanity, but much of this can be promptly and positively eliminated from the investigation by the witness in many of these cases, if he is prepared to thoroughly trace the interdependence of the physical and mental lesions presented.

Dr. Gray's able paper also brings to mind a recent case coming under my notice in which I was consulted as an expert by the physician in charge, and I will briefly narrate it in order to elicit an opinion from Dr. Gray and others. The salient points were these. A gentleman, sixty-four or five years of age, in April last, without previous observable symptoms, was seized with amnesic aphasia. Concurrent with this, there was some trivial erratic behavior, accompanied by a certain degree of mental confusion and general failure of memory. The latter, however, were slight, though sufficient to arrest the notice of intimate friends. The aphasic symptoms were distinct, and have continued. The patient had enjoyed excellent health, but, under observation, exhibited after the attack the general symptoms and appearance of cerebral anæmia. There were no ataxic features accompanying the speech, but simply the inability to remember and command a word or words, to communicate the simplest answer to questions propounded or to convey ideas. A few days after the seizure, there was, once or twice, nocturnal incontinence of urine, and a slight tingling and formication in the fingers of one hand, and once or more some vertigo. He digested well and slept well, and was ordinarily cheerful, and

maintained that there was little the matter with him, but contrary to life-long habit, was passively indifferent to his business and affairs. There was no disturbance in the heart's action after the first few days, when the pulse ranged between ninety and one hundred, or organic or functional disorder in that viscus, and there was no hemiplegic symptoms. So he has continued to the present time.

This patient for forty years had led a temperate, exemplary and most methodical life, was diligently attentive to a large and successful mercantile business, had accumulated a large fortune, and was wholly engrossed in its management to the exclusion in great part of the performance of many of the ordinary amenities and customs of social intercourse. The various enterprises in which he was interested habitually absorbed almost his entire thought and attention, and he made himself their master in every detail. At the time of his seizure, there was pending in court a suit in which his estate was involved to the amount of several hundred thousand dollars, the result of which, of course was one of more or less uncertainty, and in regard to which he was anxiously solicitous. It was, perhaps, the only event of his life of that character that had ever given him serious uneasiness of mind, and upon this from his customary isolated mode of life, he had, doubtless, brooded. In this connection it is proper to remark that a brother of the patient was of the same temperament and character, unmarried and of eccentric habits, and under business complications and reverses, became more so, and ultimately sunk into general paralysis of which he died. The opinion arrived at was, that under the exacting strains of a large and varied business, long continued and intensified by the brooding anxiety of the law suit mentioned, there had occurred a thrombosis or embolism of the left middle cerebral artery, deranging the dependent circulation in the left anterior lobe, especially in the region of the third frontal convolution and the island of Reil, impairing the due nutrition of these parts and probably to eventuate in softening more or less diffused, unless the the vascular difficulty was relieved, with a succession of ataxic symptoms in the organs of speech and general tendencies to hemiplegia of the right side. From the absence of heart symptoms and causes which would most likely produce embolism, a thrombosis or limited cerebral hæmorrhage in the region, was thought to be the actual condition. The prognosis was grave and unfavorable to final recovery, and the age of the patient and the constitutional tendency alluded to, contributed to that view. It was my opinion.

that the symptoms would gradually progress, developing lesions of the motor system of the right side, with mental decay. I would be pleased to hear remarks from Dr. Gray and others on this case.

Dr. GRAY. There is no doubt that such a sudden and profound impression and continuing for such a length of time could not be the result simply of debility or an anæmic condition, but must be the result of some absolute lesion, either in the form, as was suggested, of thrombosis or of hæmorrhage; but where there is actual hæmorrhage there is usually, though it may be very brief, a temporary paralysis. I can recollect instances which have come under my own observation within the Institution, and out of it, where the post mortem examination proved that there had been hæmorrhage, in which there was not observed at the time, even a temporary or brief paralysis. In most cases, however, a more or less prolonged paralytic condition of some part anatomically related to the point of lesion occurs. As to the prognosis I have no doubt of its being unfavorable from the nature of the case.

We had in our State a distinguished minister, one of the most eloquent in the State, a man of good physical vigor, great powers of endurance for labor, who came a few years ago to Philadelphia to attend an important association of the church, and while preaching, and near the close of the sermon he felt, as he afterwards said to me on returning home, a sensation of intense pressure in his head for a few minutes. He hurried through and as he sat down felt some little discharge upon the lips and found it was blood. He had then a most profuse hæmorrhage from the nose that so exhausted him, he called in a physician in the city, who after a great many efforts finally plugged up the posterior nares and arrested the hæmorrhage. After he came home he suffered a great deal from headache. He thought he had removed the plug, but upon examining him it still remained and was removed. He had several subsequent hæmorrhages but continued his work. In his sermon on the sabbath some few weeks afterwards, it was observed by some of the congregation that he hesitated for words in his final prayer. He was remonstrated with after the sermon by one of my assistants, who was a member of the church, who told him that he ought not to preach in the evening, and that he, the Doctor, had observed the hesitation in his speech. However, he did preach that evening, and there was still more marked difficulty in the use of words at times. On the following Wednesday he went home after a long day's work, and after completing some very labored reports he was

writing. He got home between ten and eleven o'clock at night. His two sons, one of whom was a lawyer, had just retired, and he rallied them for not waiting until he got home—and upon their youth for retiring so early. He went to bed, and passed at once into a profound sleep, a sleep that awoke his wife by the snoring, and she found him unconscious. He remained in that state of unconsciousness until the next day at about noon, but he never talked after that. There was no specific paralysis at any point, but he was universally prostrated; there was also excessive muscular prostration, as during all that time he moved no muscles, except those that were necessary for carrying on the organic functions, and he never afterwards, to the time of his death, several years subsequently, was able to speak a connected sentence. I saw him often, but although he could read, could pronounce the words with a book before him, the moment it was removed, he was unable to utter even one phrase, or one line of a hymn, without his eyes on it. For a number of months he recognized the fact that he was not saying what he intended to say.

Finally he lost the power of recognizing that, and could not tell whether he was talking sense or nonsense. Now and then he would designate in an extraordinary way what he wanted to say. For instance, coming to see me about a headache; he could not tell me he had a headache, but said, "I have tightness, a great tightness." I could not tell what that meant. Then, after a while, he said, "you know the frigid." "No," said I. "Do you mean you have a headache?" "Yes," he said. He could not repeat it afterwards. He could not say, "Please hand me my hat." He could not ask for a drink of water. He always used some other word than the one he wished to use. In that case deterioration progressed until he had all the marks, before death, of profound mental failure and the evidences of gradual softening. I have no doubt in that case it commenced in a number of thrombi.

Dr. NICHOLS. Before the paper is laid on the table, I desire to submit a remark or two upon two points considered in this valuable discussion. First, in relation to general bleeding in insanity. I have no fear that a gentleman of Dr. Baldwin's caution and sound judgment, is likely to bleed to excess; and from some personal knowledge of the large, strong people of the rich and healthy Piedmont country, in which he resides, I believe that their diseases are of a more sthenic, inflammatory character, than those of the average population of the country, and that they will bear blood-

letting better. Indeed I do not doubt that venesection is oftener indicated among his patients, than it is among the patients treated by most of the other members of the Association, and yet I feel bound to say that I should regard the revival of the practice of frequent bleeding of the insane as a decided retrograde movement, calculated to increase the number of incurables. We, as are the men of all other callings, are apt to go from one extreme to another, and perhaps we have in the last twenty-five or thirty years resorted to blood-letting less frequently than we might have usefully done. It seems to me that the local abstraction of blood might be resorted to more frequently in the treatment of the insane, than the most of us are in the habit of doing, that perhaps we should oftener arrest inflammatory conditions that run into organic lesions, did we resort to cups and leeches more frequently than I suppose we do. In most instances, even in the best constitutions in which the pulse and face give evidence of a strong congestion or inflammatory tendency, I think the abstraction of blood from the nape and temples, and warm baths quite as likely to relieve the patient as general bleeding, while it leaves him in a much better condition to struggle with whatever disease is set up. In most cases of moderate congestion, or heat of the head, cold applications to the scalp, and hot pediluvia are quite effective in affording relief. Second, in regard to the prevalence of softening of the brain, I think the late Dr. Luther V. Bell was the first to call attention to the fact that softening of the brain was much less prevalent than the profession then supposed it to be. The general professional mind is still much imbued with the idea that both sudden and chronic fatuity are due to softening of the brain. I remember one observation of Dr. Bell which I have not myself been able to verify, as a uniform diagnostic symptom, but will refer to it. He once told me that in incipient softening, in cases whose termination showed that they were cases of genuine *ramollissement du cerveau*, *ab initio*, he usually found contraction of the flexor muscles of one or both thumbs with inversion of the thumbs into the palms of the hands, that in doubtful cases, when softening was suspected, his diagnosis turned upon the presence or absence of the phenomenon. I suggest that it be made a point to look for this symptom in the cases of softening, that come under our notice. Unless other observations are submitted upon Dr. Gray's paper, it will now lie on the table.

Dr. BALDWIN. Before you close I would like to make a remark on the subject of depletion.

I hope the Association will not think that I am an advocate of depletion as a general thing. What I remarked was that in exceptional cases, in which there were most pronounced head symptoms, with a bold, strong, apoplectic pulse, then we might bleed. This was the point to which I had reference. The majority of the cases which come into the Asylum, we find, require building up. We address ourselves of course, to constitutional treatment, and give them just such treatment as we think will put them into the best physical condition to overcome their mental disease. The cases which I had cited were exceptional. But the point on which I wished to be informed by Dr. Gray, is simply this—when we are called to a case of apprehended apoplexy, or of apoplectic convulsion, with a strong apoplectic pulse, is not bleeding justifiable in such a case? That is the point.

THE PRESIDENT. It is the impression of the chair that Dr. Baldwin was not misunderstood, and that his course in these cases would be justified by the profession.

DR. KIRKBRIDE. Mr. President, the time has about arrived when Dr. Jones, in immediate charge of this department, proposes asking the members to accompany him through the different parts of this house. When that is done, lunch will be ready for the members; afterwards at about half past three, we propose going to the department for females. I am asked also to state that Dr. Worthington has made arrangements for taking the members, and the ladies accompanying them, to the Friend's Asylum to-morrow morning. Omnibuses will be at the Continental Hotel, to-morrow morning at nine o'clock, going directly to the Asylum, and in returning, the members will be taken, either to the Reading Railroad, which runs directly to the Centennial Grounds, or to the Continental, as they may prefer. They will leave the Asylum at about 2 P. M. It is understood there will be a meeting at the Asylum, as there has been this morning.

THE PRESIDENT. It is not understood that there will be a meeting at the department for females this afternoon?

DR. KIRKBRIDE. If there is time there will be no objection. I do not think there will be much time for a meeting this afternoon however. If there is found to be time we have every facility there for accomodating the Association. I shall, at the proper time, move that when we adjourn, we adjourn to meet at the Friend's Asylum, to-morrow morning at 11 A. M.

After a statement by the Secretary relative to the necessity of promptness on the part of the members in

returning their revised remarks to him, and after some discussion it was, on motion of Dr. Kirkbride.

Resolved, That the proceedings of the Association be published in the July number of the *AMERICAN JOURNAL OF INSANITY*, and that the Secretary be requested to have the proceedings prepared from the reporter's notes, unless the members return their remarks to him within ten days after they receive them.

The Committee to report delegates to the International Medical Congress, to meet in Philadelphia, on September 4, 1876, made the following report:

Thomas S. Kirkbride, M. D., Isaac Ray, M. D., John Curwen, M. D., Clement A. Walker, M. D., Pliny Earle, M. D., John P. Gray, M. D.,* D. Tilden Brown, M. D., H. A. Buttolph, M. D., Orpheus Everts, M. D., Charles H. Nichols, M. D., Walter Kempster, M. D., Charles H. Hughes, M. D., H. F. Carriel, M. D., J. H. Callender, M. D., W. S. Chipley, M. D., James Rodman, M. D., Eugene Grissom, M. D., C. K. Bartlett, M. D., A. M. Shew, M. D., James R. DeWolf, M. D.

On motion the Association adjourned to meet at the department for females, at 5 P. M.

The Association then passed through the wards of the department for males, and after lunch, through the wards of the department for females and was called to order at 5 P. M. by the President. Dr. Kirkbride introduced Miss D. L. Dix to the members of the Association.

The Committee on time and place reported in favor of St. Louis, Missouri, and the last Tuesday in May, 1877, which was unanimously adopted.

The report of the Committee on delegates to the International Medical Congress, was then read and adopted. The Association then took up the paper of Dr. Ray for discussion.

* Dr. D. H. Kitchen subsequently acted as delegate Dr. Gray having resigned.

Dr. KIRKBRIDE. Mr. President, while I intend to make few remarks myself, I hope that this most important paper will not be allowed to be passed over without some suggestions. The subject is certainly one of the most important that has been before us. The criminality of the insane is deserving of the most earnest consideration.

Dr. Ray has stated most truly that the members of the legal profession should study insanity as physicians do. He might have gone much further and said that physicians generally should study insanity as though they were going to be superintendents of hospitals for the insane. Physicians generally acknowledge their want of familiarity with the disease, particularly where a person accused of crime makes the plea of insanity. It is not simply physicians in general practice who do this, but we ourselves frequently show our weakness, when brought before a court of justice. This whole subject shows the importance of lectures on insanity, and on the medical jurisprudence of insanity being introduced into every medical school in this country. We can never expect any very great improvement in the profession, until insanity is taught in our medical schools. It certainly is as important as many of the branches which are treated at length and there should be regular professors in all our medical schools. In this city there have been lectures delivered on the subject by the very distinguished author of the paper before us, and by others in the schools of New York and Boston, but this has been secondary entirely to the regular course. There have been no examinations on the subject and the whole matter has been treated as though it was of no great importance. I merely rose to urge upon all our members the importance of using their influence to have regular courses of lectures on insanity and mental jurisprudence, connected with insanity, in every medical college in the land. I trust the members who have thought on the subject will express their views freely before the subject passes from our notice. I would call upon Dr. Gray.

Dr. GRAY. Mr. President and Gentlemen, as Dr. Kirkbride has suggested probably no more important subject could be brought to our attention. Dr. Ray, in his paper, has exhausted this, as he usually does any subject upon which he thinks and writes. However, he suggests if I understand him, but few remedies, if any, to remove the difficulties that seem in his view, to lie between the courts and the medical profession. One remedy I would suggest, that is, to bring the courts and physicians nearer together, with a view of obtaining a better appreciation of the real points at issue.

When a man is arraigned and put on trial for a crime, and a plea of insanity interposed as a defence, Dr. Ray proposes as a remedy, that we should have more intelligent jurors. However, without a fundamental change in the law how would it be possible to bring about such a result? In special cases, now, the court may order a select jury, but this is not done in criminal cases and indeed could hardly be accomplished, as every man is the peer of every other man; and jurors are drawn according to certain principles of law, of general application, which recognize the ability of all men to set upon any subject brought within the sphere of a court. Out of this panel the twelve men are selected, and days are often consumed in this process. I doubt whether we can expect any change in this direction. Now Dr. Ray also claims that a jury is an incompetent body to decide such a question, which no one can contradict; also, that the courts were inclined to look upon the whole subject of insanity in the light of law which did not really recognize medical science in any proper way. The expert, standing as he does now, is merely an interpreter of certain facts and phenomena presented to his judgment and his opinion must be submitted under certain rules of evidence. That it is difficult always to get at the real facts of the case, may be true, nevertheless we must look to the courts in this class of cases, as in all others, for the application of such rules of evidence as will bring out the facts, and present the person on trial, as irresponsible if insane, or guilty if the plea is a mere pretense. In regard to juries, if we look into the history of trials, for the last few years, we find, as Dr. Ray has said, that there has been a change in public sentiment. We find it, however, in this direction, that juries are much more liable to acquit the guilty than condemn the innocent.

It is important for the public interest, and the cause of justice, as well as for humanity and science, that this side of the question should be as distinctly presented as the other. If there is this danger, as experience shows, then, any measures tending to reach this difficulty, or defect in the administration of law should be hailed with satisfaction. Any measures that will tend to place experts in a proper relation to such cases, as independent and, unprejudiced interpreters of facts, will place them in a different light from what they are generally believed to occupy now. Indeed they are now quite likely to be looked upon as mere tools to shield the guilty, or as witnesses for the party who employs them. While experts have no responsibility as to the *consequences* of their opinions, they should be as loyal to science, as a court

should be to law. For myself I should not fear the courts, however exacting they may be in the applications of the rules of evidence. I can not but believe, that if all such cases were entirely in the hands of courts, it would be better than trials by any jury, however intelligent, and that the result would be much more in accordance with justice and humanity. My experience is this, that when the question of insanity is thrown entirely upon the courts, they are quite anxious to get the best advice possible, and they appoint experienced experts.

In remodeling and codifying the laws of New York, upon the subject of insanity, in 1874, it was determined, in regard to criminal cases, when insanity was pleaded, to get nearer to the source of justice, by bringing the criminal nearer to the courts and giving them power and discretion, to appoint a commission, and meet the issue definitely and distinctly. If a man pleads, on his arraignment, as an excuse for crime, in the higher grades, that he was insane, if that be pleaded as a general traverse, and his whole defence to the indictment, the court may at once appoint a commission to examine into the mental condition of such person, at the time of committing the offence. This commission is empowered to take testimony and compel the attendance of witnesses. Now this brings the inquiry fully and clearly into the hands of the medical profession and the courts. There have been a number of such commissions in New York, and in every instance, experts have formed a part of the commission, and no instance has occurred in which a court has overruled the final judgment of such a commission. If found insane, the court commits him to a State Asylum. There have been more cases decided by commissions since this change in the law than by trials. It seems to me this is a real remedy. If, on the other hand, insanity is not the whole defence, or the plea has not been made at the time of arraignment; for instance, if he should claim that the crime was committed in self defence, or under extraordinary provocation, in addition to his being insane, then he may be tried before a jury, or a commission may issue to determine whether, at the time, he is in a condition of sanity to make his defence, and should be tried or not; again, if a person in confinement or under indictment for the higher crimes appears to be insane, the court may summarily inquire into his sanity, by the appointment of a commission, and if found insane he may be committed to an asylum, there to remain till restored to his right mind, and then remanded to prison, and criminal proceedings be resumed or he be discharged. Now it seems

to me that these provisions cover all the grounds that are necessary for the defense of the individual, or for all the purposes of justice, and it is my observation, under the operation of this law, that the courts are careful in regard to the selection of commissions. Not only so, but the commissions are required to make a thorough personal examination of the case, to examine the witnesses under oath, with all the ordinary forms for protection against misstatements, or any wrong, guarded also, if the defense desires, by counsel. Now with all this, the court also requires, not only a written opinion, but the submission of all the testimony taken, that it may be able itself to review this testimony, in connection with the opinion given, and in that way the whole subject is thoroughly gone over. I do think that if such a system should be approved by this Association and be generally adopted in the various States, that we would have far less difficulty in regard to expert testimony, and furthermore that the profession would be subject to far less—I was going to say disgrace—but I will say far less condemnation than it now receives for the seeming contradictory evidence, that is often presented in criminal trials when insanity is an issue. In my observation, contradictory, mainly because, instead of *the case* being actually submitted to the experts by examination, and by hearing the whole testimony they are required to answer hypothetical questions got up by the lawyers themselves, in their own language, each purporting to be an analysis of the evidence, but too often so adjusted as to present two sides. The lawyer for prosecution and defense presenting the unlike questions get unlike answers, and that ends in cracking the heads of the two experts together. I have been myself on trials where I have heard the testimony, and where I have read the hypothetical questions, and where they had little or no relation to each other, and yet I was obliged to answer on the hypothetical questions, and disregard the real evidence in the case. Any one who has been brought to this experience will realize how easy a thing it is to engender, by witnesses on either side, the feeling of bias. From my observation and experience, and on careful reflection, it does seem to me that the difficulties of arriving at true conclusions in regard to all these matters can be largely remedied by the substitution of commissions for trial by jury, and a final rendering of the decision by the court on the report of such commissions. Now, Mr. Chairman, I have no desire to go into the general discussion of the subject of responsibility, which Dr. Ray has treated, and I content myself simply with referring to the question of a remedy.

Dr. COMPTON. I would like to ask if a report is made to the jury?

Dr. GRAY. The jury have nothing to do with it. If the prisoner, on arraignment, pleads insanity, then the court may hand him over to a commission. The District Attorney then represents the public before that commission, and the attorney of the individual represents him. After arraignment, and while the person is in prison awaiting trial, it is in the power of the court to appoint a commission at any period; and if the person has been tried and convicted, he then through the same law may appeal to the Governor, who has the power to appoint a commission, and if in the opinion of the commission he is insane to send him to an asylum. So that there is no period in the history of the case, from the time of committing the act until he has passed through all the courts that a commission of medical men can not be resorted to. Finally, he reaches through the same means, the clemency of the Governor.

Dr. COMPTON. The decision as to insanity is left to the judge, and not to the jury?

Dr. GRAY. Yes, sir.

Dr. RAY. Will you allow me to ask in case the counsel of the prisoner should plead insanity before trial whether the question is then brought before the commission as to the insanity of the prisoner?

Dr. GRAY. Yes, sir.

Dr. RAY. Supposing the commission should report him not insane?

Dr. GRAY. Then his attorney can renew the plea before the court and jury.

Dr. RAY. He has his trial?

Dr. GRAY. Yes, sir; he has his trial.

Dr. RAY. In the ordinary way?

Dr. GRAY. Yes, sir; in the ordinary way.

Dr. RAY. Then the report of the commission has very little to do with the ultimate verdict?

Dr. GRAY. It has only this to do with it; the commission takes all the testimony carefully, and a great deal more thoroughly, in my judgment, than it is often taken in trials, and it is submitted to the court without going through the hands of the jury, the incompetent body you would avoid, and the commission is composed of medical men.

Dr. RAY. Is this report ordered by court to the jury.

Dr. GRAY. No, sir; the jury never have any thing to do with it.

Dr. GUNDRY. I was very much pleased with one point of Dr. Ray's paper, if he will allow me to say so, in that he brings his position much more in accordance, I think, with the feelings of all of us, by referring more distinctly than ever to disease, as the ground work of his plea of insanity, in all cases; and I agree with him most fully that the instance of disease must, in very many cases, be inferred from the acts, rather than the acts should be inferred to be the result of disease.

Nevertheless we are always glad to hear from him without cavil, because differing, as I do, from many in my belief as to these matters. I believe of course, irresponsibility commences when disease commences. I believe also that it is a very difficult thing, and perhaps an almost impossible thing to say, that in a given case you could put your finger upon the place, the time when disease commenced, and from your knowledge of other causes, you infer that this extraordinary conduct, which has come up for investigation, may be, or must be the result of disease, occurring from analogy, from its agreeing so nearly with the case which has been traced out, in every case where the steps have been known; for in a number of cases, the person to be investigated is not known very much of before, and all the evidence you have, and proof of his prior life is tainted with the suspicion that it is *pro re nata* manufactured. Now then the practical inference is of course the necessity of all of us studying the natural history of the disease, as all disease makes its impression upon our mental faculties, our mental development, and I can not but think that possibly we have gone a little too far in the dictum, that insanity, or insane behavior, legally speaking, is always strictly the result of what we call disease of the brain.

Let me state my view of the matter: a man has the gout, he may be a good, honorable, upright man, but he has the gout, and in a fit of the gout he assaults his attendant; that man is as irresponsible for that action as if he was the most decided lunatic within four walls. For why? Because the irritability of that conduct was not the result of his unfettered will, but was the product of that something which ranges through him. I believe we are too strict in defining the relations in this matter, that it is almost impossible to tell where mind begins and matter ends, where soul intermixes with all of it; and that we ought to accustom ourselves, rather more than we do, in speaking of them as dis-

tinct entities, to look at them as more of an entity, and that the action of the one is simply, if I may say so, a system of the correlation of the intention of the other, and the gout working through the man, instead of giving him time to reflect, because it is something in him which produces this kind of disease, compels him to act at once. We know the kindest man is often rendered very irritable and peevish by disease, and the kindest man who is affected with disease of the brain becomes an irritable, perverted man. Take another class of cases more nearly coming up to our knowledge, I think it would be very difficult to say that any definite impression has been made so as to restrict it to disease of the brain. Take what in a natural class of cases of disease, I would call roughly developmental insanity. I speak of it simply, roughly, without meaning to define too closely, or start from that period in life when puberty commences, and the struggles of girlhood passing into womanhood come on, and you find that after a time when the age has passed by, in which maturity may be expected, you have maturity of the one side, with the feelings, inclinations and wishes of the other; in other words, you have the dual nature of the girl and woman, coming side by side, and neither of them evolving the perfect woman that we expect.

Now then it is pretty hard to say that there is a specific disease of the brain in that case, and yet I appeal to all of you, whether, in that class of cases, this thing that you meet, these cases of disputed insanity, or insanity arising from acts, things done or words spoken, is not a specific disease. To pass on to another period of that life when the physiological act of child-bearing commences, how many women, during the period of gestation could be really and properly answerable for all their proceedings. Why is it that during that period of physiological action, the person about to become a mother, performs these extraordinary acts, which, under other circumstances would render her amenable to the criminal discipline, and usually it is a well known fact, it is the dictum of common sense, residing in the minds of all people, that preserves that person from being brought up and restrained. Now it is perfectly absurd, I think, to say there has been that disturbance that results in disease of the brain, but we should recognize in that condition simply a want of balance, so to speak, of the mind from the nature of the stage they are passing out of, and the want of due power to bear that which they are passing into. Look at any man you please at sixty-three, which is usually about the critical time of man's life, or place it where you please, you will find that he be-

gins to change, breaks down, is morbid and is very different in his ordinary intercourse with others from what he was in the past year, or six months. They will, perhaps, go through very comfortably this stage, grow young again, as it is called, and enjoy life and look upon life in a different light. Now will you say in that period that the brain has been primarily or organically affected, will you say that, simply while nature is adjusting itself to its physiological process, the process of evolving into a new being from two beings imperfectly connected, so to speak, the acts of the girl, acts at these times of life, can be disease of the brain? If, therefore, instead of limiting it in that way you simply choose to call that a pathological change or abnormal condition, if you simply look at it in that view, I do not think there would be very much difference of opinion as to the great probability that it exists with persons known to be undergoing a stage of development, and showing these extraordinary acts, and that it is from natural influences that they result from that stage and in no other and from no other and from nothing else, and just as we spare a woman who is pregnant, from the common sense of mankind, without any medical theories about it. I think we will agree upon the other matters. But when you come down, as I have seen the testimony of several persons, to cases where no palpable disease of the brain has been discovered, where there is no lesion either discoverable by our finite minds, or by any other means, and say that the erotic acts of that person must be proceeding from a willful mind, and not from an insane one, I can not go that far. I suspect that if we could follow these cases to the very last resort, and trace the post mortem, we should find many lesions that we do not discover during life, which would rebuke our opinions given in that hasty manner.

Dr. CHIPLEY I heard Dr. Ray's paper with a great deal of gratification. It bore the characteristics that all the papers from that gentleman have had, but I thought it was even more lucid than similar writings from the same gentleman upon the same subject. I thought that he made the matter so clear as to leave much less room for caviling and for criticism than has been passed upon his writing in reference to the same subject. So far as the paper, as it was read, goes, I think it is a subject of vast importance, especially as to our means of determining, by witnesses, whether the person is sane or insane; that it is a question of facts, and not a question to be determined by our theories, or the means by which we undertake to explain them. I think that the greatest difficulties, that I have witnessed in court with experts, or with

those who have been called experts, have been an attempt made by the expert to explain the symptoms, instead of considering the symptoms as the signs of disease, and make up their opinion alone on those symptoms without attempting to explain them, and among all the difficulties that I have witnessed in cases of criminal jurisprudence, where insanity was the question, the greatest have been where persons are called, as is almost universally the case, as experts, who are not, and who have no knowledge on the subject of insanity, no experience, no observation; their course of life has not been such as to lead them to study the subject of insanity; one who is in the practice of medicine, and one especially who has prejudged the case without a full knowledge of the facts and whom the lawyers may find out or discover will give a favorable view of the case, is called as an expert merely because he is a physician. Almost all the contradictions, that I have seen in the course of any case of this sort, have arisen between those who have a right to be considered as experts and those who are no experts at all, and could not in the nature of things be so considered.

I was surprised to hear Dr. Gray say that he was compelled to give an opinion on expert questions, framed by the lawyers, on a hypothetical case made up to suit their own purposes. I do not know whether there is any difference in the law, but such questions have been put to me very frequently. I have uniformly declined to give any opinion in the case and uniformly I have been sustained by the court. I have taken the ground that I could not conceive of an imaginary case that would be full and complete in itself, that certain symptoms, certain developments would be the highest sort of proof of insanity in one person and no proof of insanity in another. The very same act, the very same thought and the very same conduct that would be the highest proof of insanity in one person would be no proof at all in another, and that when, therefore, the lawyer framed his case, and put it to me as an imaginary case, and asked whether the development of such and such symptoms proved the existence of insanity, I say that I do not know, that such is an imaginary case. Having marked the real case you get all the facts, you get the previous history of the individual, and that previous history gives matters of fact, and not matters of imagination on the part of the lawyer who frames the case especially to suit his own purposes.

I have uniformly declined to answer these questions, and have always been sustained by the court in doing so. I think with Dr. Gundry, that when we are called in cases of this sort, the only

thing we have to do is to consider all the facts in the case, and give our opinion accordingly without attempting to explain those facts, and without developing any theory upon which our opinion may rest, for our opinions ought not to rest upon theory without considering the facts in the case. We have only to say whether we consider the person to be sane or insane, and leave the consequences to the court and jury and the law. I did not intend to make any remarks upon the subject, but was personally called upon, and so I concluded to say what I have said.

Dr. A. E. MACDONALD. I should like to add my testimony to that of Dr. Gray, as to the successful working, in the State of New York, of the law in question. During the past two years there have been a number of cases, such as those of which Dr. Gray has spoken. Not only have cases upon indictment for trials been referred to commissions, but cases have been so referred after trial and conviction, and before sentence, and one case at least after sentence. The fact that it is optional with the prisoner, claiming that the act for which he was indicted was committed under the influence of insanity, to apply for such commission or not, affords us one proof of the effectiveness of the practice, from the fact that such application has only thus far been made in cases where it was afterwards proved that there was certainly insanity. Prisoners, whose insanity was simulated, have preferred to take their chance of establishing it in the old way before a jury. I consider that they have thus given an unintentional evidence of the value of the law; so clearly has its value been shown, that the lawyers and judges in our State have recognized the propriety of the law; and one of our most learned judges, in New York city, placed himself on record recently, at a public meeting, by saying that he thought the question of insanity, apart from all other questions, that might arise in criminal cases, should be referred to, and passed upon, solely by medical experts, qualified to judge of the subject, and not by jurors.

It looks, therefore, as if there was some danger that the legal profession will anticipate us in this matter, and bring about a reformation, which we ought to be the first to propose and secure. It would be very proper, it seems to me, for this Association to put itself upon record upon this question, as being of the opinion that all questions of insanity arising in the course of criminal trials, are not properly subjects for the consideration of ordinary jurors, but should be left to commissions composed of qualified experts.

Dr. GRAY. In answer to Dr. Chipley I would say it is the rule of law in our State, to answer the hypothetical question, and this method is sanctioned by writers on jurisprudence.

Dr. MEAD, Massachusetts. I would mention a marked case in illustration of the importance of bringing the proposed commission more immediately in contact with the judges, rather than depending upon the uncertainty of juries. The case was one of homicide, and was tried in 1847 or 1848, in McHenry county, Illinois; I was called and gave an opinion. The fact that the subpoena emanated from the prosecuting attorney, prepared me to expect to find a case of feigned insanity. The Hon. Isaac N. Arnold, of Chicago, Associate Counsel for the defense, also asked me to attend the trial, because it was the first that had occurred in the State of that character, and of that degree of importance. Another circumstance favored the supposition of feigning. The jail physician had pronounced it a case of feigned insanity. However I took pains to examine the case thoroughly, in view of the great moral responsibility involved, and in a few days made up my mind, that it was one of real, and not feigned, insanity. The prosecuting attorney was a man of prejudice, not at all acquainted with the subject of insanity, and I soon learned that the sources of his information, read up for the occasion, were Esquirol's Treatise and Dr. Forbes Winslow's article on Insanity, in the Cyclopædia of Practical Medicine. He was determined to put hypothetical questions which is one of the points that has been spoken of in the discussion. These could not be answered unqualifiedly. He kept me two hours and a half on the stand. The result of the trial was a disagreement of the jury, nine were for a verdict of wilful murder, two for manslaughter, and one for acquittal on the ground of insanity. The case was brought to a second trial in Chicago, by a change of venue, before the Hon. Hugh J. Dickey, and fifteen other physicians were called to testify, all of whom corroborated my opinion. The prosecuting attorney of that court, a very intelligent and capable Scotch barrister, declined to make any remarks to the jury, complimenting the medical witnesses for, what he termed, the clearness of their opinions, and gave the case to the jury without argument. The second verdict was an acquittal.

Upon the rendition of the verdict, the judge took occasion to remark that the case was so plain that if the jury had rendered any other verdict, he should have felt it his duty to set it aside. The case was considered sufficiently important to induce Mr.

Arnold to take notes of the medico-legal points. These, I am informed by a recent letter from that gentleman, were lost in the great fire. Inasmuch, however, as I myself took notes of the trials with great care with a view to publication, the deficiency can be supplied, with the exception of Mr. A's. argument which, however, can thus be revived. The accused was placed under my care when the same homicidal propensity was manifested and the same method attempted. The case terminated fatally in three months, the post mortem examination revealing extensive organic changes in the cerebral tissues.

Dr. PARSONS, New York. Dr. Gray has suggested to me that I may be able to make some statement regarding the trial of Scannel to which allusion has been made, that will be of interest to the members of the Association. There were indeed certain facts in connection with this case that are of especial interest, as tending to show how unsatisfactory the present methods of taking expert testimony are, how unlikely these methods are to elicit the real opinion of the medical expert regarding the existence of insanity in a particular individual. I was called by the defense in the Scannel case, and it so happened that I was the only medical expert called. The usual hypothetical case was made up by the defense, and the opinion given regarding this hypothetical case was that it contained statements which, if true, must be considered as indubitable proofs of the existence of insanity. This was eminently satisfactory to the defense. The prosecution then made up their hypothetical case and propounded the usual question. The reply was that the existence of insanity could not be predicated on any or all the statements comprised in this hypothetical case. This was eminently satisfactory to the prosecution, so much so indeed, that they declined to call their own expert witness who had been in waiting to testify. Here then we have two hypothetical cases made up from the same evidence, regarding the same individual, and submitted to a single expert; and two diametrically opposite opinions given apparently regarding the mental condition of the same individual, but really regarding two hypothetical cases, neither of which was likely to represent the facts in the real case. It can hardly be doubted that an expert in any science is better qualified than others, not only to judge of the significance of facts bearing on that science, but also to conduct the investigation by means of which the facts are ascertained.

The PRESIDENT. Dr. Ray, will you make some remarks in reply to what has been said on the paper.

Dr. RAY. It may be remembered that in a paper which I read at Toronto, I discussed this matter of commissions, as applied to cases of alleged insanity, when pleaded in excuse for crime, and contended that they were inadequate to meet the difficulties in question. Having no reason to doubt the correctness of my opinion as then expressed, I need not now refer to what was then said. I admit that commissions appointed to ascertain the mental condition, before trial, of such persons may do a very proper service, in case they report the existence of insanity as the result of their examination, provided that such report would prevent the necessity of a trial. If, on the other hand, the report should be that the person examined was not insane, then the trial would go on all the same, with experts on both sides and courts with their rules of law and tests of insanity. I admit also that a proper commission, after the trial, where the prisoner has been convicted, would do good service by confirming or otherwise, the verdict of the jury, and thus aid the Executive in meeting the responsibility of his final decision. In fact, in the paper just referred to I advocated the appointment of such a commission in all that class of cases. A better way of meeting the difficulties that exist in these cases, is that which was adopted several years ago by the State of Maine. There, when a person is to be tried for a capital crime, and the plea of insanity is to be made in defense, the Governor is empowered to send such person, previous to trial, to the insane hospital, for the purpose of observation. So far as I can learn, this provision has worked well, and been satisfactory to the public. Our friend, Dr. Harlow, if he is here, can tell you more particularly about it than I can. I can not forego the opportunity, Mr. President, of showing by a shining example how much better is fair-minded, judicious, intelligent action on the part of courts, than any legislative enactments. I refer to the practice of the courts of Philadelphia, which I have had occasion to observe during the last few years. Discarding the usual technical rules they have admitted evidence in regard to the mental condition of the prisoner in the freest possible manner, as if their only object was to obtain the utmost amount of light on the subject. In their instruction to the jury they have said but little, if anything, about rules of law or tests of insanity, leaving to them to decide the question of insanity, as they would any other matter of fact, and I have observed in their treatment of questions of insanity, instead of that feeling of repugnance to the plea, too often manifested by our courts, a disposition to favor and encourage it. Within a year or

a little more, in a case where insanity was pleaded in defense, on a charge of murder, the prisoner was convicted, but the evidence of insanity was so strong that the court refused to receive the verdict.

The PRESIDENT. Dr. Harlow, will you inform the Association of the working of the law which requires persons who have committed criminal acts, in cases where the plea of insanity has been set up, and where the prisoner has been sent to the asylum for observation?

Dr. HARLOW. Mr. President, more than twenty-five years ago, while Dr. Bates was at the head of the Maine Insane Hospital, he proposed a law, which was enacted by the Legislature, that all persons committing crime, for whom the plea of insanity should be set up as a defense, should be sent to the Hospital for observation, in order that the truth or falsity of the plea might be established. That law is still in operation, and it has, in the main, worked satisfactorily. Under it a large number of cases have been received, observed, and reported to the court after due observation. The testimony of the superintendent, in all of these cases, has been conclusive. They have been decided in accordance with his report.

There is one objection to the law, as it now stands, and, as the Hospital is now situated, with reference to classification. It necessitates the mingling of the criminal insane with those who are innocent and harmless, and when the prisoners alleged to be insane, proves to be otherwise, they often give considerable trouble in their management.

I have suggested that there be a separate building for that class, where they could be classed by themselves, and at the same time be under the daily observation of the superintendent. I would also place with them, after trial, all who are acquitted of crime by reason of insanity. There are, at the present time, two persons by the name of Page, committed to our Hospital, by order of court, for observation, one charged with the crime of murder by shooting his own wife, the other with that of larceny. All persons committed for observation remain in the Institution till the next succeeding session of court, when, if they are not called for trial, it becomes the duty of the superintendent to discharge them.

Dr. RAY. Can you recollect about the number treated under that law?

Dr. HARLOW. I can not state definitely.

Dr. RAY. What would be the result of sending persons to the insane asylum for observation on the subsequent proceedings?

Dr. HARLOW. Some have been left in the Institution, some have been sent to prison, and some not called for trial have been discharged by the superintendent.

The PRESIDENT. On what ground have these patients been discharged—those who have not been called for?

Dr. HARLOW. Upon the ground that the court failed to comply with the statute. The district attorney for some reason failed to send for them. It was found upon inquiry, some years since, that quite a number had been left in the Institution, without further proceeding, other than the commitment, after the superintendent had reported to the court the results of his observation, their cases not having been disposed of by trial or otherwise. In order to settle all such cases, the Legislature passed an act that they should be called for trial at the next session of court after their commitment; otherwise the superintendent should discharge them.

Dr. C. F. MACDONALD. So far as my observation goes I can say that the workings of the present lunacy laws in New York, have shown them to be a great improvement over the old methods of procedure in criminal cases, where the question of insanity is raised. We have several cases in the Asylum, at Auburn, which have been sent there in accordance with the new law. In these cases justice has been done, and, as Dr. Gray remarked, the great expense of a trial has been avoided.

Another evil which the present lunacy law has done away with, was alluded to by Dr. Chipley, as existing in other States; namely, that any physician, no matter how inexperienced, could set himself up as an expert to testify in cases of alleged insanity, and in order to insure his being called to the witness stand, it was only necessary for this so-called expert, to intimate to one of the attorneys that he entertained an opinion favorable to that side of the case. The law in New York now leaves it to the court to select the medical gentlemen, and the court are not likely to select inexperienced physicians to decide these important medico-legal questions.

During the discussion to-day, allusion was made to the importance of diffusing a better knowledge of insanity among the profession at large. I think that is a duty which this Association can not afford to overlook. Several striking instances have recently come to my notice, showing the utter want of appreciation or comprehension of the significance of the medical terms used in lunacy certificates. There are commitments on file in my office, made by a physician in good repute, in which the same patient is certified as having chronic mania, periodic mania, melancholia,

idiocy and lucid intervals. Comment is unnecessary, except to state that the space for remarks is left blank.

Dr. KIRKBRIDE. Our patients are now in our gymnastic hall, and would be happy to receive a visit from the Association. I propose the members and their friends should spend a short time there before going to my house to pass the evening. If there is no special business before the Association I would move that we now adjourn.

Dr. KEMPSTER. Before the motion to adjourn, which I apprehend is forthcoming, is put, allow me to call attention to the fact that a committee has not yet been appointed to take action upon the death of a member of this Association, the late Dr. A. S. McDill, Superintendent of the State Hospital for the Insane at Madison, Wisconsin. I expected that Dr. Boughton, his successor, would be present to announce the death of Dr. McDill, but he does not appear to be. I would respectfully suggest that Dr. Boughton be placed upon the committee.

On motion of Dr. Kempster, it was resolved that a committee of three be appointed to prepare resolutions on the death of Dr. McDill.

The PRESIDENT. Before putting the motion to adjourn this evening, I desire to briefly allude to the peculiar circumstances, so interesting to American alienists, under which we have met to-day. We are enjoying the very special privilege of meeting and transacting our business in one of the departments of the Institution—honorable alike for its age, its benefits to the sick and the prominent part it has so long taken in promoting the advancement of medical and surgical science and art—which one century and a quarter ago furnished the first organized provision for the care of the insane on the Western Continent. We also have had the privilege of inspecting the wards of both of the departments of the venerable Pennsylvania Hospital devoted to the treatment of its insane patients, and learned the lessons of practical wisdom and encouragement to be derived from its vast material appointments, excellent in every detail, and from its administration, humane and skillful in every particular, and of partaking of its bountiful hospitality. It is a most interesting fact, which, I think is not generally understood nor appreciated, but of which Americans may be justly proud, that more than a quarter of a century before Pinel began his experiments in the ameliorative treatment of insanity in

his private Asylum, and still longer before the Tukes established the Retreat, the Legislature of the Colony of Pennsylvania in the charter of the Pennsylvania Hospital, distinctly recognized lunacy as a *curable disease* and made public provision for both its medical and moral treatment. In 1773, about twenty years after the opening of the Pennsylvania Hospital with a department for the care and treatment of the insane, the Colony of Virginia established the first institution on this continent devoted exclusively to the treatment of diseases of the mind, but the second to make special provision for the treatment of these diseases.

This Asylum, situated at Williamsburg, which has celebrated its centennial anniversary, was the pioneer of the present State, as the Pennsylvania Hospital was of the corporate asylums of the present day. The Colonies do not appear to have established any other asylums or hospitals of this character. The first additional provision for the insane, after the United States became an independent government, was made in the New York Hospital, which in 1797 began to receive cases of mental disease, and in 1808 opened a separate building in the Hospital Grounds for the insane patients of that Institution, out of the latter provision grew the Bloomingdale Asylum. In the first four decades of the present century, eleven other institutions were opened in the United States, six State, four corporate, and one municipal. In 1841, the insane under treatment in the Pennsylvania Hospital, were removed into the building in which we are now assembled, and this department, under the name of the Pennsylvania Hospital for the Insane, was first put in charge of its present honored head. While the insane of the Pennsylvania Hospital were under the immediate care of the frequently changing *internes*, and more permanent daily visiting physicians of a general hospital, there must have been considerable variety in the professional skill and judgment displayed in their treatment, but I believe it was always humane in the highest degree. As soon, however, as the Pennsylvania Hospital for the Insane became a separate establishment, it began to be a leader in all the opinions and interests of this branch of the healing art. Prior to this period, the ground plan upon which most of the edifices that had been constructed in this country for the care of the insane was a copy of that which prevailed in Europe, and was known as the *quadrangular* plan. This plan of construction brings the quiet and excited classes of patients nearer together, and affords less light and natural ventilation than are desirable and attainable. To remedy those evils, Dr. Kirkbride designed the ground plan o

the Asylum at Trenton, New Jersey, which has come to be known as the linear or Kirkbride plan. While this plan may be thought to verge from the one it was designed to remedy, to the opposite extreme, its main features have been approved by most of the experts and public authorities that have been engaged in the rapid provision that has since been made for the insane of the United States, and the Province of the Dominion, and I understand that it has already formed the essential basis of the arrangement upon the ground of more than fifty institutions of this character. At a later period the head of this Institution—the host that honors us to-day—reported the propositions relating to the construction, heating, furnishing, fitting up, organization and management of institutions for the insane which were adopted by the Association, and which together with his book upon the same subjects, have prevented the cost to States, municipalities and corporations of a thousand blunders in providing for the care of their insane, have gone far to establish uniformity and excellence in the management of American institutions, and bestowed upon the inmates a thousand comforts and sanitary advantages they would otherwise have been less likely to have enjoyed.

The head of this Hospital was one of the thirteen men whom we delight to honor as the founders, thirty-two years ago, of this voluntary Association, which has had such a widely recognized career of usefulness in giving prevalence and authority to correct opinions and practice in every thing relating to the welfare of the insane, in their personal, social and legal relations. Four of the original members are present, and I may say to them, that it has often seemed to me, that but few men in this life, have had the happiness to participate in an act of such far-reaching importance to the welfare of their fellow-men, as the founding of this Association, nor in an act which they and their posterity may regard with more satisfaction. In concluding this notice of the very extraordinary circumstances under which we are here met in this centennial year of the Republic, I feel much confidence that you will sustain me in the declaration, that in all that relates to the principles involved, the most humane and highest sanitary and moral treatment of the insane on the continent of America, Dr. Kirkbride's opinions and influence have been, and are of the most beneficial and commanding character; and that this Institution, under his management for upwards of thirty-five years, has at no time had a superior, as a comfortable retreat and successful Hospital for the insane. Let us devoutly hope that the inmates of

this Institution may long enjoy the advantage of his kind care, and the specialty of his accumulated wisdom. (Applause.)

On motion the Association adjourned to meet at the Friend's Asylum, at 11 A. M., Friday.

After adjournment the members witnessed the performance of light gymnastics by the female patients, and spent the evening socially at the residence of Dr. Kirkbride.

JUNE 16, 1876.

The Association was called to order at 11 A. M. by the President, at the Friend's Asylum.

The President announced as the Committee to prepare resolutions relative to the death of Dr. McDill, Drs. Kempster, Ranney and Kilbourne.

The Secretary read a letter from Dr. E. T. Wilkins, Superintendent of the Napa Asylum, California, and a motion was made to refer the same to the business committee.

Dr. KIRKBRIDE. Just before leaving the hotel Dr. Gray handed me a telegram from his assistant, stating that the man who had killed Dr. Cook had been received at the Institution at Utica, under the criminal law of New York. He thought it might be interesting to know what disposition had been made of him.

Dr. RAY. Mr. President, before that vote is taken, allow me to make one suggestion to the business committee respecting the condition of the Blockley Almshouse. If there is any authority in this Association, and if it is expected to exercise anything like a beneficial influence upon the care of the insane, I invoke an expression of opinion respecting that Institution. It is too well known that the pauper insane of Philadelphia are not cared for by any means as they should be, considering how much better they are cared for in other States and cities. The way in which they are cared for, in the insane department of the Almshouse, is simply an outrage upon humanity. I have too much regard for the credit of our city to speak particularly about it. My purpose may be

answered by stating only a few facts. The patients have been allowed to accumulate there, where, indeed they never should have been at all, because there is no land, scarcely, connected with it, and consequently no opportunity for work or recreation. The associated dormitories are crowded, the floors are covered with beds, and the rooms, ten feet by five or six, are made to receive three persons; and these small rooms—be it understood—are occupied by the most excited class of patients. This, too, is not the worst of it; when a very violent patient comes in at night—too violent in fact, to be placed with any other—the occupants of one of these rooms must be turned out, and put in a room already containing three to make place for the new comer. The natural result of such crowding might be anticipated. During the three years which I served on the Board of Guardians, we had two serious attempts at homicide, and only the seasonable, though accidental interference of the watchman prevented success. About eighteen months ago, however, there did occur an actual homicide.

Now what is the reason of this? Simply that the proper authorities do not choose to furnish the requisite means for taking suitable care of the patients. It is a mere matter of public parsimony, and a niggardly parsimony it is, for a city which is spending millions of dollars for parks, public buildings and other things not called for by actual necessity. One dollar and eighty cents per week, is the rate at which the city of Philadelphia discharges its duty to the insane pauper. And the most deplorable part of it is, that we see no end to this state of things. The crowding goes on from year to year, at a steadily increasing rate. Some five or six years ago, two additional wings were erected, capable of receiving a hundred and forty patients, equivalent to about three year's increase.

Now, under a storm of indignation raised by the public press, councils put up a series of shanties, totally unsuitable for the purpose, to take in about two hundred more. What was really wanted was accommodation for violent and excited cases; but the rooms in these new structures have no strength at all. A child could knock them to pieces.

What we ought to have is a strictly State Institution. The insane poor are the wards, not of the city, but of the Commonwealth. This is the relation which must be assumed before we can expect for the insane, the kind of care that they need. As long as the Institution is under the charge of our municipal government, just as long will it be a field for jobbery and meanest parsimony.

Now, if by any strong expression of opinion on our part, we can excite some salutary public feeling on the subject, we shall do good service to the cause of humanity, because there is no reason under Heaven, why the insane poor of Philadelphia should not be cared for by the State, as well as those of Pittsburgh, Reading or any other municipality. I admit that a step was taken in the right direction by the last Legislature; but the bill passed was totally inadequate to the purpose, and the sum appropriated (\$25,000,) shows that it was only a pretence at doing something.

DR. KIRKERIDE. I am very unwilling to detain the Association, but I may just say that I agree entirely with the views of my friend, Dr. Ray, in almost every respect, but I do not want anybody to suppose that our attention is just called to this subject by the brief visit of our English friend, Dr. Bucknill. It was just as well understood before his visit as it has been since; although his distinguished name has given some prominence to it. It is a quarter of a century since the humble individual who addresses you and other medical men of Philadelphia made most earnest efforts to have done just what Dr. Ray suggests now. It is a full quarter of a century, and this state of things has been going on ever since.

The success of that effort was so little—nothing in fact—that we became discouraged, and began to think that the only way to have anything done was to let matters go on and get so bad that the people would not tolerate them any longer; and it has nearly come to that point now. I agree freely with Dr. Ray that the State is bound to take care of the insane of Philadelphia just as much as of any other portion of the Commonwealth. Philadelphia pays a large proportion of the taxes of the State, whatever they may be, and has a right to have the benefit of all institutions under State patronage. One institution, however, is not going to be enough for Philadelphia, it is not worth while to think that it will be. It has been recently said, I understand, by a State official, that the project of having an institution for Philadelphia was opposed by gentlemen who had the care of the insane. I know that this is not the case. Dr. Curwen and myself, at least, have it on record that we urged most strongly on the Legislature to put up two hospitals for the city of Philadelphia alone, each of which should accommodate six hundred patients, which is quite as many as any hospital for the insane should contain. That plan was not adopted, but a law was passed providing a hospital for six or seven counties and for the city of Philadelphia.

It makes provision for the insane of that section of the State, it is true, but it can not relieve Philadelphia. If Philadelphia were to have one hospital for six hundred male patients beginning this year for instance, they could be placed in it at once, and the six hundred women left could be tolerably well taken care of in the present building, until another hospital could be put up. The remedy for all our difficulties is plain enough if our rulers could only be induced to carry it out. The citizens of the Commonwealth must insist that it shall be done before we can have institutions that are at all comparable with the wants of Philadelphia or worthy of its character for humanity.

Dr. CURWEN. I move a change of the reference of the letter from the Committee on Business to the Committee on Resolutions and wish to say a word in this connection. I have been told by members that when they visited the department for the insane of the Philadelphia Almshouse on Wednesday, (for I could not go myself, as a previous engagement prevented,) that the President of the Board of Guardians referred to me distinctly by name, and said that they had made efforts to have a Hospital for the Insane of Philadelphia, so as to relieve the crowded condition of the wards in the Almshouse, but that Dr. Curwen had used his influence and had prevented them. Now I wish distinctly to state that I have done no such thing. I have been laboring with all the powers I possess for years to obtain accommodation for the insane in the State of Pennsylvania, for Philadelphia and the State.

Dr. RAY. For Philadelphia you mean ?

Dr. CURWEN. For Philadelphia and for the State at large. When the bill proposing the Hospital for Philadelphia and the four counties immediately adjoining, was before the Senate, I proposed to a Senator to make the bill applicable solely to Philadelphia, being perfectly willing, as chairman of the committee of the Medical Society of the State, to prepare a memorial for a Hospital for the seven south-eastern counties outside of Philadelphia, to take the responsibility of recommending that course, and wait for another year for pushing forward the project we were anxious to have passed. But the Senator objected decidedly, and the result was that six counties were added to Philadelphia in place of four. I have been laboring earnestly for many years to secure, as I said, all the accommodations for the insane in Pennsylvania, which they really and urgently needed. All the opposition to this project for a Hospital for Philadelphia, came from members of the Legislature, who stated to me distinctly that they were afraid the money ap-

propriated by the Legislature, for that purpose, would pass into the hands of a certain class in the city, who would not allow it all to be used for the purpose designated, and that deviation they wished to prevent.

The motion to refer the letter to the Committee on Resolutions was then agreed to.

Dr. KIRKBRIDE. With the understanding, I take it, that special reference should be made to what was found to be the condition of the insane at Philadelphia Almshouse.

Dr. GREEN. I desired yesterday afternoon to make some remarks in reference to the paper of Dr. Ray, but failed to get an opportunity, and if not considered out of order, I would be pleased to do so now. Mr. President, I, in common with every member of the Association was much pleased with that paper, and heartily adopt its general suggestions, especially that which urges upon members of the medical and legal profession, to inform themselves more thoroughly on the subject of insanity in its various forms. Numerous examples have come under my notice, of the great need of that. For instance, on one occasion, a very prominent legal gentleman of our State had a relative under my care in the Institution, whom he frequently visited. I urged upon him as his duty as a man in the legal profession, desiring to render himself useful, as well as to occupy a prominent position in the profession, to make himself better acquainted with the subject. Of course it was not to be expected that he could enter upon the regular study of this specialty, but I advised him to purchase some of our best books and subscribe to the *AMERICAN JOURNAL OF INSANITY*; he did so, and subsequently gave me this information. He had business in one of the cities below that of his residence, where he had formerly lived; and with the medical gentlemen of that city he was quite familiar, one of whom was for several years his family physician. He was in attendance on the court as a lawyer without having any connection with the trial of the case of a colored man that had been an epileptic, as it was proven, for twelve years. He had been in the City of Albany, and had three or four convulsions during the day. Late in the afternoon he set out for his home, a mile and a half or two miles from the city; he met an old negro man, very infirm and decrepid, struggling along on his way to town upon his staff—a man he had never seen and had no acquaintance with whatever, and with a heavy bludgeon he had in

his hand, he fell upon that poor old man and literally beat his brains out. The act was witnessed by a young colored person, some fifteen years of age. Perceiving the assault, he made his escape for fear that it might be made upon him also. He saw the act committed; the old man was found some time afterward, lying there in that condition. The negro man was arrested and was indicted for murder; prominent physicians in that community gave the opinion that the fact of his having been an epileptic for twelve years, did not necessarily involve any affection of his mind. Upon that opinion, [expressed by the medical experts, he was found guilty. But fortunately the verdict was accompanied with a recommendation to mercy, under which the court was authorized to send the man to the penitentiary for life. It was done, and in about six months afterwards, he died in a convulsion in prison. It is not necessary to detain the Association with details. Several such examples have come under my notice, of the total want of anything like satisfactory knowledge of this subject on the part of the medical profession, and very often in the case of men who deservedly stand high as general practitioners. A case occurred in the City of Atlanta, in which a man there shot quite a prominent citizen, totally unwarrantably, and an effort was made to procure an exemption from liability to punishment, by the interposition of the plea of insanity. A number of medical men in Atlanta were called before the court and jury, to give their opinion upon that subject. There was but one of them, a Dr. O'Keefe, who once had a brother under my care in the Asylum, who was then residing in Alabama, and whom he frequently visited, who was candid enough to say to the court and jury, that he knew very little upon the subject; although he stood deservedly high in the profession, as high doubtless as any of the medical men who were called before that court and jury, to give their opinions, as experts, as to the mental condition of the man when he committed the act. The man was adjudged guilty, and doubtless properly so. He was for years a very intemperate man, and was to a greater or less extent under the influence of liquor at the time he made this assault. He has since been pardoned, after remaining some time in the penitentiary.

Now as to the remedies proposed for the existing state of things, I am not quite clear that any of them would meet the necessities of the case. I understand by the remarks made by the gentlemen from New York, that there is a law existing in that State, under which a party indicted for a capital offense, and in whose case the plea of insanity is interposed, can have the appointment

by the judge, of the commission, prior to trial, to investigate the subject, and if that commission decide that the party is insane, the court on that decision may send him to an institution for observation for an indefinite period of time. Am I correct in the statement?

Dr. A. E. MACDONALD. The gentleman is in error in mixing the law of Maine with the law of New York.

Dr. GREEN. Be that as it may; I do not wish to make any remarks specially applicable to New York rather than any other State, I speak of it as a remedy. This then is the case, that in some States the party is sent to an institution for observation, for an indefinite period. How it can be justifiable, or in accordance with our constitution, to compulsorily detain a person for any period for observation, I am at a loss to understand. I can not understand how he can be deprived of the right of habeas corpus, and I can not understand how he can be deprived of a right to demand a trial by jury at any time, and thereby be relieved from confinement, which might be extended to a greater length to furnish satisfactory evidence to the Superintendent of the Institution as to his mental condition.

Dr. A. E. MACDONALD. There is no possibility of sending a patient for observation in that way. The commission merely pass upon his sanity or insanity, by examination and report; he can then, if insane, be sent to an institution.

Dr. GREEN. Does the judge finally settle the matter?

Dr. A. E. MACDONALD. If the commission find the man insane, the judge can then send him to the State Asylum, there to stay until discharged by order of a court.

Dr. GREEN. If it is decided by the commission that he is not insane he is discharged?

Dr. A. E. MACDONALD. No sir: he stands his trial.

Dr. GREEN. It seems then the commission will be of very little use. The idea then which some gentleman suggested, Dr. Gray I think, that it would be desirable that this Association should recommend the adoption of such a law in every State is overcome. I should think it would be rather difficult to get up a commission of experts in many of the States where they have but one institution and I should not consider ordinary physicians experts. I scarcely think that the proposed remedy meets the difficulties of the case. Now as to the appointment of commissions among medical men generally, I have the history of a case recently in which I am unde

a subpoena to attend the next court as an expert, and give my opinion as to the man's condition at the time he killed his wife. The judge is authorized, in our State, to appoint a commission to investigate the mental condition of the man at the time he committed the act, and a jury is impaneled. If he is found insane he is ordered by the court to be sent to the asylum and there retained until discharged by act of the Legislature. A defect, as I regard it, in our law is that though the individual should be entirely restored, he can not be discharged until the Legislature meets again. This case in which I am subpoenaed was investigated by a commission appointed by the court, and they never did and never could agree. The case went to trial, the man was convicted and sentenced to be hung; a motion was made for a new trial and an application made to the Governor for a reprieve upon the ground of newly obtained evidence, which the Governor granted. However, prior to the reprieve he appointed a commission consisting of three medical gentlemen residing in that immediate neighborhood, all gentlemen of high standing in the profession. They visited the prisoner and having made such investigation as they deemed necessary decided the man was not insane. That conclusion was probably brought about mainly by the folly of his counsel; one of whom notified the man of the appointment of this commission, and of their arrival in the village, and when they had an interview with him, he in fact, as you might expect him to do, played crazy, and very bunglingly. I think that an insane person may be prompted to act in this way by the suggestion of his counsel, and his conduct may have led to the conclusion that he was not insane. The counsel, however, succeeded in obtaining a new trial, having obtained conclusive evidence that the man *had been insane*. The question is yet open for final adjudication. I think it very desirable to induce our medical brethren generally, to take an interest in this subject, and to take some pains to acquire better information with regard to it, and it is equally important that the members of the legal profession should do the same thing.

On motion the further consideration of the subject was postponed until this afternoon.

Dr. RAY. It having occurred to me that some of my remarks respecting the Philadelphia Almshouse may have been misunderstood, I beg leave to say that I did not intend to include within the scope of my censure, any reference to the management of the Institution by its present officers. The management has been—

I have abundant reason to know—in the highest degree humane and appropriate, and the patients have enjoyed all the comforts which they could possibly have under the circumstances. The habitual condition of the Institution has always been good, as I doubt not, the members of the Association who went there the other day, found it.

The Association, under the conduct of Dr. Worthington, examined the wards and grounds of the Asylum, and afterwards enjoyed the bountiful lunch provided for them.

The Association was called to order at 3 p. m., by the President.

Dr. Green declined to continue his remarks, and Dr. Baldwin expressed a preference to read his paper at another time.

Dr. KIRKBRIDE. There is one subject, if Dr. Baldwin does not read his paper, that I should be glad to bring to the attention of the Association, and I do it after consultation with several of the members, who seem to have thought as I do in regard to it. It is one of the remarkable things attending this Association, that there has been such great unanimity of view, in regard to the care of the insane, in almost every essential particular, from the very foundation of the Association, until the present time. The unanimity that has marked the expressions of opinion has been truly remarkable. Almost without exception they have been unanimous. We are all aware, that of late it has become not infrequent for men who have had little, I might say almost nothing, to do with the insane, to criticise the actions of those who have devoted their lives to their care and treatment, and to claim the right to advise new plans for hospitals and measures for treating the insane. I do not think it would be becoming or dignified in this Association, to answer these assertions or assumptions, nor to notice insinuations that this body is retarding progress, but I do think it might be useful to have the propositions and resolutions of the Association collected in pamphlet form, and printed at the expense of the Association, to be distributed among the members for use in the different States of the Union, where they think they might be most useful, and most likely to refute the unsound views which have been so freely circulated in certain sections of

the country. I therefore propose, Mr. Chairman, and move, that a committee be appointed, who, after stating perhaps the origin and objects of the Association, shall collect these utterances of opinion and have them printed in pamphlet form, at the expense of the Association, for the use of the members. It seems to me that there can be no objection to that course, and that it might be productive of the greatest good, just at the present time.

The resolution was agreed to. The Chair appointed Drs. Kirkbride and Callender, and on motion of Dr. Kirkbride, the President was added.

Dr. SMITH. Mr. Chairman, as there is now no special business before the Association, perhaps the Committee on Chloral Hydrate is ready to report. This committee was appointed two years ago, and, failing to report at our last meeting, asked further time. It is certainly an important subject, and well worthy of the consideration of this Association. There is but one member of the committee present, Dr. Curwen, and I trust he may be able to favor us with a report.

Dr. CURWEN. Dr. Hughes promised to attend to the whole matter, and I have not given any attention to it, as I have had my hands full of more important work. I am perfectly willing to go upon the record on the resolution I offered at Nashville two years since.

Dr. SMITH. I am not prepared to make any extended remarks, but the subject has been pending sometime and I am anxious to hear the report of the committee and a full expression of views of the members. The last two or three years I have been much more cautious in the use of chloral hydrate than before. While I regard it a most important, and indeed invaluable remedy in very many acute cases of insanity, in another class of cases I also regard it sometimes a very dangerous remedy. Two or three years ago I had several patients who had been using Chloral regularly for sometime. All manifesting symptoms of gradual decline, as slow emaciation, loss of strength, hesitancy of speech, unsteadiness of gait, indications of cerebral congestion, occasional paroxysms of difficult breathing, &c., the same group of symptoms very similar in each one, and knowing all had taken chloral for a considerable period, I feared they might be the effects of the remedy and hence withdrew it, and to my great gratification the alarming indications soon disappeared. With such experience as this it is very natural my caution in the use of chloral should have increased. I have

never, however, been in the habit of using as large doses as many superintendents.

THE CHAIR. In what doses have you been in the habit of giving it?

DR. SMITH. When a patient first enters the Institution I commence with a small dose, fifteen to twenty grains, or, more correctly, from ten to twenty grains and watch the effects to determine if any idiosyncrasy or peculiarity exists. Tolerance of the remedy, you know, differs widely with different patients. The effects of fifteen grains, or even ten would be much more striking upon some than forty, sixty and eighty upon others. My usual dose is twenty grains two or three times a day. In a large majority of cases I give it only once a day, just as the patient retires. Sometimes I give thirty or forty grains when given but once a day, and in a few cases sixty or even eighty, but these are very rare exceptions. My usual prescription, however, is twenty to thirty grains once a day, as stated. While I believe it is an invaluable remedy in many cases, it is one which should be used with caution and its effects closely watched. With a remedy so extensively used in all our institutions as this has been for several years past, and so generally regarded free from danger, I very much fear we may sometimes fall into the error of not discriminating clearly between its effects, and the regular progress of disease, and by persevering in its use, fatal results follow.

In one of my best Medical Journals, heretofore alluded to, I read an article giving a series of morbid phenomena, which appeared, sooner or later, after the continued use of chloral. Among these were extensive erythemas and pustular or papular exanthemata, cerebral congestion, difficulty of breathing, and all the symptoms of blood poisoning. That the morbid phenomena, in the great number of cases given, resulted from the continued use of chloral, was proven by the fact that they speedily disappeared after its withdrawal. A striking case I remember; a distinguished physician was called in consultation to a lady, prostrated by protracted sufferings, who had attacks of dyspnoea, which had increased to asphyxia; her face was swollen, the facial muscles paralyzed, and all the signs of cerebral effusion. All remedies had failed, and the patient seemed on the brink of the grave, when he suggested the discontinuance of a daily dose of forty-five grains of chloral, which had been given for some time as a hypnotic. Whereupon all the alarming symptoms vanished as if by magic, cerebral disturbance ceased, and respiration soon became natural. The author

of this article also stated that similar cases of poisoning from chloral had been recorded in the various English Journals with fearful frequency. Is not such testimony as this sufficient to induce us to watch more closely a remedy we have been prescribing so often, and we may occasionally have mistaken its effects for the symptoms of progressive disease?

Dr. CATLETT. What pathological indications do you consider contra-indicate the administration of chloral?

Dr. SMITH. Our observations have not been sufficiently accurate and extensive to determine definitely the pathological conditions contra-indicating chloral. The cases in which I observed its dangerous effects were generally those of long standing, with feeble state of the vital powers, want of activity, tone and vigor, and patients advanced in life. If hyperæmia of the lungs and dyspnoea be among the occasional poisonous effects of chloral, cases complicated with a tendency to pulmonary congestion would also contra-indicate its protracted use.

Dr. CATLETT. I would also ask if you have had any experience of its benefit in epilepsy in mitigating the paroxysms?

Dr. SMITH. In epileptic cases where high mental excitement and sleepless nights have followed the seizures, I have used it as a hypnotic with pleasant results. I have also given it with good effect where the excitement seemed to take the place of the seizures, but am not able to say it exerted any decided influence in preventing a repetition of the paroxysms.

Dr. CATLETT. Mr. Chairman, as substantiating Dr. Smith's opinion that it is dangerous to administer chloral in states of vital depression, dependent upon functional derangement, or organic lesions of the vital organs, I would say we have had in our vicinity three marked cases of death arising from the ordinary doses of chloral, having been administered during or after the paroxysm of *mania-â-potu*, or delirium tremens. In one of the cases fifteen grains, repeated every half hour, was supposed to be the cause of death.

The PRESIDENT. For what length of time?

Dr. CATLETT. Five or six doses were administered; in the other case thirty grains, twice repeated, was considered to be the cause of death. In the third case, the patient had a phial containing a drachm and a half of chloral, out of which he had taken three doses. I saw the phial, and the remaining contents, and found about one-third of it left. I made a post mortem of the case. He had been in a state of intoxication for some time, was a dissipated man, paroxysmally dissipated; after his death he was removed to

our city, and I was asked to make the post mortem, as it involved the recovery of a life insurance policy. I examined his brain, medulla, the heart and cerebellum. The medulla was congested, no amount of inflammation present; serous effusion and congestion. In the left ventricle of the heart was an organized fibrous clot. I gave no definite opinion as to whether the chloral produced his death or not. My private opinion was, had he not taken chloral he would have survived the attack, as the chloral may have aided the formation of the heart clot. Whether that opinion was correct or not, of course, I could not tell. I am in the habit of using chloral in the asylum, and was in the habit of using it while in private practice to some considerable extent, and always guarded the use of it, and avoided its use in all cases where I thought it was contra-indicated.

Dr. FULLER. Did you ever use croton chloral, Dr. Smith?

Dr. SMITH. Yes, sir.

Dr. FULLER. What were its effects?

Dr. SMITH. I did not notice its effects particularly.

Dr. CATLETT. I have given thirty grains. I prefer it to the chloral hydrate when indicated, because it has not the debilitating effects afterwards.

Dr. C. F. MACDONALD. As chloral was just coming into use in this country when I entered asylum life, I may perhaps have had as much experience in its administration as have some of the older members of the Association. I have used it largely during the past seven years, and must say I have never seen any bad results.

In the Kings County Lunatic Asylum, with which I was connected for several years, there were nearly eight hundred patients. We used on an average, three pounds of chloral per month, and out of that experience, I can recall but one case in which there was even a suspicion that death was the result of chloral. The autopsy revealed advanced nephritis and valvular cardiac lesions and also removed the suspicion.

I usually order thirty grains to be given at a dose, and to repeat it in a half or three-quarters of an hour, if sleep is not produced. On one occasion, a male patient suffering from violent acute mania of about one week's duration, was given, through a mistake of his attendant, two drachms at one dose. He soon fell asleep, and slept continually for eighteen hours. When he awoke he was rational, continued so, and progressed to complete recovery.

Dr. CURWEN. The resolution of two years ago reads as follows: Resolved, That it is the opinion of this Association, that chloral

hydrate is a remedy, so peculiar in its effects, and so decided in its therapeutic action, that it should be employed with great caution, and only on the prescription of a reputable physician.

Dr. KIRKBRIDE. Was not a committee appointed on that?

Dr. CURWEN. A committee was appointed. The objection to the resolution on the part of some members, was the use of the great caution.

Dr. A. E. MACDONALD. It seems to me that the resolution is superfluous. Every remedy should be applied with great caution, and only upon the prescription of a physician. As regards the use of chloral my experience coincides with that of Dr. Carlos MacDonald, and that of all those with whom I have conversed upon the subject. I do not know of a single case where chloral hydrate has been prescribed, and death has followed, where the autopsy has not revealed other adequate causes of death. I have used it very largely in the treatment of the insane, and I have not seen a case in which I had untoward results from it. Certainly patients may die suddenly who are taking chloral, but so do persons die suddenly who are not taking anything, and it is unfair to conclude that because chloral has been taken, therefore the chloral has caused the death.

Dr. KIRKBRIDE. I would like to ask the Doctor whether he has not occasionally known cases taking chloral to die rather unexpectedly to him; that has been my unfortunate experience, and I confess I have become exceedingly cautious in its use. I am free to say I would rather my medical friends would not administer it to me under any ordinary circumstances.

Dr. A. E. MACDONALD. I have not had that experience which Dr. Kirkbride relates. As Dr. Gray is not here, I may mention that Dr. Andrews, his senior assistant, told me recently of one or two cases, at Utica, where a patient taking chloral died suddenly, but where post mortem examination showed clearly that death was not due to the remedy. Dr. Gray's* experience and conclusions in the matter, are, I think, identical with my own.

Dr. KIRKBRIDE. You made post mortem examination of those cases?

Dr. A. E. MACDONALD. Yes, sir.

Dr. COMPTON. The dose of chloral prescribed at our Asylum is about twenty-five or thirty grains. I remember the discussion on

*The post mortem showed that death occurred from pachy-meningitis, with extensive sub-arachnoid serous effusion, especially around the medulla.

this subject at Nashville, and my impression is that Dr. Hughes moved to strike out of the resolution which was offered, the words "great caution" because they seemed to be connected with the idea that four or five grains was the proper dose of this drug, and that to go beyond that was hazardous. My experience, as given on that occasion, has been confirmed by subsequent practice, that twenty-five or thirty grains is the proper dose, and that it is the best hypnotic which has fallen into our hands. We have a few cases in which we have given it, every night for the last six years, without bad effect. On the contrary we have not only secured a good night's rest to a patient, but we have thus secured a quiet ward.

Dr. CALLENDER. I have used chloral hydrate freely and sometimes heroically, but have never observed the untoward effects, either in acute cases, or as a result of its continuous use which have been noted in the experience of some practitioners. We find it efficacious—perhaps beyond any other agent—in quieting habitually noisy patients at night, but we are cautious not to induce the chloral habit by its prolonged use in any case. As a simple hypnotic, producing sleep and leaving the least hurtful incidental results I regard it very highly in the average twenty-five grain doses, though I have given as much as seventy grains without harmful consequences.

Dr. CATLETT. I would ask Dr. Callender whether in cases of chronic irritability, the result of the administration, almost nightly, was not to make patients more irritable, instead of quieting them and producing sleep?

Dr. CALLENDER. I have no such experience, but on the contrary, properly administered, as I have said, twenty-five grains produces the desired result and none other.

Dr. CATLETT. I have three cases in my Asylum, and my habit with them is to produce sleep by giving ten grains, fifteen grains, sometimes twenty grains repeated in fifteen or twenty minutes, in cases where I know that they require a repetition of the dose.

Dr. SMITH. I have used the new remedy nitrite of amyl, with seemingly good results in epilepsy, and regard it especially applicable to that class of cases where the paroxysms occur in rapid succession and continue one, two, or three days. One or two superintendents commend it in the highest terms and say it controls such cases with great ease; I have used it by inhalation two, three or four drops each time. My experience with chloroform has been much more extensive and I have found its inhalation in such cases usually attended with the happiest results.

For the purpose of eliciting the views of all the members of this Association on the subject of chloral, I move that a new committee of three be appointed to report at our next meeting; and I trust that this discussion will induce us all to watch more closely this remedy from day to day that we may discriminate more clearly between its effects and the symptoms of disease, and thus render our next discussion more interesting and profitable.

Dr. KIRKBRIDE. I second the motion because this very discussion has shown the soundness of the resolution offered at the meeting at Nashville. Some gentlemen having given a dose of seventy or eighty grains have never seen any bad effects, while other gentlemen do not wish it to be administered to them, and do not care very much about using it at all.

The motion was then agreed to.

The President appointed on the committee, Dr. Smith, Dr. C. F. MacDonald of Auburn and Dr. Harlow.

On motion the Association adjourned to 8 P. M. Session to be held at the Continental Hotel.

JUNE 16, 1876.

The Association was called to order at 8 P. M., by the President.

The Secretary laid on the table, reports sent by Dr. Jarvis, for the use of the members. Dr. Everts then read a paper on "Incidents of Civilization, as predisposing and exciting causes of Insanity."

The PRESIDENT. The Chair infers that as a matter of course, the Association will proceed to the discussion of Dr. Everts' elaborate and very interesting paper, perhaps one of the most profoundly philosophical papers that has been read before this body. It will greatly interest the social scientist, as showing the causes of the prevalence of insanity in civilized communities, and the modes of staying its increase. The doctrines of the paper underlie the treatment, as well as the etiology of mental disease, and are therefore of very great interest to us.

Dr. KIRKBRIDE. I can hardly let the occasion pass without expressing my obligations to Dr. Everts for giving us this paper,

which certainly contains matter for thought for every member of this Association, and I agree with him that the remedies for the evils spoken of, which are so universally recognized, and the magnitude of which can hardly be over-estimated, rests with the medical profession more than all other classes of men.

Neither the efforts of the clergy, nor the profession of law, nor of any other class, can compare with what the medical profession is able to do for the reduction of many of the evils spoken of. I think it of a great deal of importance, therefore, that the medical profession, as a body, should act only after deep reflection, and using every opportunity of becoming familiar with facts that ought to be known as firmly established.

I have no disposition to enter into the discussion to-night, but I repeat, we ought to feel obliged to Dr. Everts for his valuable paper, and every one must recognize the thought and intelligence that have been used in its expression.

Dr. RAY. I always like to hear the philosophy of insanity discussed, especially when the opinions expressed agree entirely with my own. Apart from that, however, I may say, that I was much gratified with the general line of inquiry and its results, as presented in the paper of Dr. Everts. I need hardly say that the causes of insanity are a matter still involved in a great deal of obscurity, owing not merely to the inherent difficulties of the subject, but also to the vicious manner in which the inquiry has been pursued. When a certain incident or event is alleged to be the cause of insanity, it is natural to ask why, where it is so potent as to make one man insane, it should be entirely impotent when applied to another. Now in most of the discussions on this subject, and indeed in most of the treatises on insanity, almost up to the beginning of our own time, we are left entirely in the dark upon that point. A domestic affliction, a loss of property, or a sunstroke is sufficient, we are told, to make this or that man insane; but we are not told why the great majority of men experience the same trials without at all affecting their minds. Now that certainly ought to lead to the inquiry, whether there is not some common cause for them all. In this way we shall be more likely to ascertain the precise nature of insanity than we shall by dwelling upon these accidental or casual incidents. We are in the habit of thinking that certain diseases spring from some constitutional infirmity derived, for the most part, if not entirely, from ancestral conditions. It is certainly a matter of some surprise that we have ignored this philosophy of disease, as it may be called, when speculating on the origin of insanity.

If our inquiries lead to the conclusion that insanity is of a strictly constitutional character, the next question is whether this infirmity had not its origin in some previous generation; and in fact the bent of the more recent inquiries has been in this direction. We are told by them that we must look for the potent element in the production of insanity, to a cerebral condition that can not be better expressed, perhaps, than by the term, cerebral vitiation. None the less am I ready to admit that the origin and cause of this vitiation may be fairly attributed to these agencies incidental to civilized life which are mentioned by Dr. Everts. I presume if men were always correct in their ways, manners and habits, physical and moral, we should have little insanity. Indeed it scarcely needs an argument to prove, that in this our present modern life, a large proportion of our people indulge in exercises of the mind and of the body which have a deleterious influence upon the cerebral organ, which, however, may not become fully developed until transmitted to a succeeding generation. Paradoxical as it may seem while civilization is supposed to increase the amount of happiness in the world, it is equally true that it is at the same time prolific of most mischievous evil. We have only to conclude, I suppose, that this is the price we pay for it as we do for every other blessing. In some of Dr. Everts conclusions I am hardly prepared to acquiesce, not because I deem them incorrect, but solely for the lack of suitable evidence on the subject. I do not deny that incontinence, masturbation &c., are oftentimes productive of insanity; but their agency, I apprehend, has been greatly overrated, and that when too obvious to be denied it is generally of a secondary character. I believe this because there is a lack of direct and straight-forward evidence necessary to establish that relation to insanity which is often assigned to them. A little more caution in the admission of evidence would have led, I think, to a different conclusion. It certainly would have led us to suspect that we have sometimes mistaken the cause for the effect, and shown us that some of these supposed agencies are only the natural results of mental disease instead of being its cause.

Dr. GUNDRY. I was very much pleased to hear the paper of course, and thank the Doctor for bringing the subject before us, and in following him through I was gratified at the number of conclusions he arrived at, though I must confess, that perhaps, almost necessarily, I should hardly agree with all he stated, and there are considerations on the other side which ought not to be ignored now. I do protest and will ever protest against inebriate persons

being brought into these institutions for the insane. I repeat, in spite of the fact that I was corrected for it by the Vice President of this Association, the best thing to do with an inebriate is to take him by the neck and say, "hold villain," reform yourself or get out of society, and that would be the best remedy we could get, the best external remedy—the only mode to reform inebriates is to begin in that way. Therefore I think it is unphilosophical for us to be talking about instituting benevolent institutions for self-degraded sinners. Inebriation follows just the same law as all other degradation. The miners of Cornwall, history tells us, were the most degraded persons that ever lived until John Wesley commenced his labors among them, and sending a thought into their minds which germinated into action and changed that peasantry from the most degraded of peasantry in Great Britain to the enlightened Cornish peasantry at this time, who are the most happy people from the civilizing work of the Wesleys.

Inebriates are not to be reformed against their own wills, of course, the duress of the law may keep them within a certain line of action, but that is not reforming them. Many a man who is kept simply by the conventional rules of society within a certain line of conduct, on this side of the mountains, as you all know was the case, when freed from all these shackles, and he found himself in the mines of California, revealed that he had not been reformed. Such men then, show that they had not been civilized, that they had not been raised by the law, but had simply been restrained by it for the time being, the restraint being removed, the spring took its full rebound. So I do protest against inebriates *per se* being considered as insane people simply because they have contracted the habit of crime.

Dr. A. E. MACDONALD. There are several points in Dr. Everts' paper to which I should like to refer, but our time being so limited, I shall only speak of one matter, namely the causation of insanity. I have been during the past two years preparing statistics upon the subject, and I may mention briefly the result. In my Institution, of course, the causes may differ somewhat from those in others, mine being an Institution for males only, and males drawn from the lower classes of the city of New York. As regards this class then I am convinced that the primary cause of their insanity is hereditary taint, and the immediate cause, most commonly, intemperance. Of these cases regarding which I have been able to procure reliable information, in about eighty per cent. I get a clear history of insanity or other nervous disease in former generations.

As to the influence of intemperance as an immediate cause, less than ten per cent. claim to have been abstinent. Of the entire number admitted, fifty-four per cent. give a direct history of excessive indulgence in the use of intoxicating liquors; and thirty-six per cent. confess, (or their friends confess for them) that they have been what *they* term "moderate drinkers."

The PRESIDENT. The observations are of great importance, I hope they will be continued.

Dr. A. E. MACDONALD. The results so far obtained, will be found in my reports for the past two years.

Dr. GUNDRY. Allow me to ask the Doctor one question. As to these poor patients that come to you, Doctor, are not a great many of them foreigners?

Dr. A. E. MACDONALD. A large proportion of them.

Dr. GUNDRY. They are themselves intemperate? That is what I understand.

Dr. A. E. MACDONALD. Yes, sir.

Dr. GUNDRY. They come over with the expectation of picking up gold in the streets, and are disappointed in the expectation?

Dr. A. E. MACDONALD. Possibly, but emigrants becoming insane during the first five years of their sojourn in the country, are cared for in a special asylum. Those therefore who come to us have been over five years in the country, and have presumably had time to recover from their disappointment.

Dr. GUNDRY. I know how it is if a man comes over here and expects to earn a living and get rich and is disappointed, he might very well bear that for a year or two. It is after four or five years that it affects him. Hope deferred makes the heart sick.

Dr. BALDWIN. I would merely say that I have been extremely interested in Dr. Everts' paper, and was especially impressed with the importance which he has attached to the point of intemperance, not only in respect to the heredity of the vice, but also to the deterioration in the mental and physical qualities of the offspring. My observations in this respect have been very painful, having witnessed this vice and all its painful accompaniments handed down from father to son. I have been truly interested in the Doctor's paper, and hope to receive a copy of it.

Dr. FORBES. Mr. Chairman, I came in late, but before Dr. Everts finished reading his paper. I, however, gathered the conclusions. I am one of those who, when they have nothing to say, think it is best to be silent. However, having given Dr. Everts' subject a good deal of thought, as I understand it, I will crave

your indulgence for a few minutes. It is told in history, or story, that Napoleon, on one occasion, in a hot contest, had a private call his attention to a critical point, with the suggestion that a force directed there would be decisive. The commander replied, "you rogue, where did you get my idea?" The disposition was made, the field won, and the soldier at once promoted. I claim nothing like Napoleon, nor do I intimate anything like the other character of Dr. Everts. The point I wish to make is, that he has gotten my idea. I have been for some time considering the subject of asylum treatment of inebriates, in connection with some practical method for their thorough reformation. As well as I could get at his views they are precisely parallel with my own. I would deal with a confirmed inebriate as I would deal with a lunatic. He is just that—not more nor less. Frame the law to affect him exactly as it does the lunatic. Instead of a writ reading "De lunatico inquirendo," let it read "De inebrio inquirendo." I do not know whether my Latin is correct. But instead of an inquiry as to insanity, let it be an inquiry as to confirmed, habitual drunkenness. Let a jury decide his case upon evidence and proper proof. When convicted proceed exactly as with a lunatic, reduce him to the condition of a minor, by taking away his estate, if he has any, and placing it in the care of a committee, disfranchise him for the time, deprive him of all privileges and immunities that pertain to him and adorn him as a man—strip him of his proud equality among his fellows. Then let him be placed in an inebriate asylum, prepared for such cases exclusively, there let him be treated for his malady. Let him be restricted rigidly in his habits. That is the way to reform and restore him, and when so reformed and restored let him go back to his family and friends and society, precisely as a lunatic does, who has been restored to his healthy mental powers. Reinstall him in his manhood, clothe him anew in all his rights and attributes; but let him feel that he goes back with the inevitable certainty of being returned to the Institution whenever he falls into his former habits.

I would make the inebriate's case different from that of the lunatic in this, I would open an account with him and place him at some useful employment as soon as sufficiently invigorated, charging him reasonably for care, custody and treatment, and giving a fair credit for his earnings and products; and I would detain him longer before discharging him, in order to be the better assured of the certainty of cure. Temporary reformation—the abandonment for a time of the habit—merits no consideration. It is of no avail

unless connected with an idea of permanency. The inebriate will enter an asylum, a very wreck, mentally and physically, and in a few weeks he is "straightened up" and "all right." I have seen such a case often in my own Institution. I have received them, treated them, cured them and sent them home "clothed and in their right mind," apparently as well as ever in their lives. The very first I would hear from them, in not a few instances, would be that they had returned like the sow—that we read about. To insure the desired permanency let the law be held over him, *in terrorem*. Let him understand that relapse into former habits means return to the institution. Let him be impressed with the fact that there is no escape from it, that "day and night the gates are open" to receive him; that its privations and humiliations await him. Then when at home he will ponder and reflect when the appetite seizes him; he will hesitate before venturing on indulgence, the tendency of which he knows full well. He will say to himself, "If I go on a 'lark,' I shall have to leave home, I shall suffer banishment, for if I drink, I shall get drunk and if I get drunk the asylum awaits me." Is it not apparent that thus the remedy is reached? If there is a remedy to be found that is practicable, efficient, sure and permanent, it is this, in my humble opinion. Drunkenness can not be cured by moral suasion, nor by the frowns of public opinion. Dr. Everts expresses the thought most beautifully. He characterizes the habit as stronger than love, and asks "what power can be stronger than love?" I will tell you. When the demoniac turns upon his wife, his little children, his aged parents, in their gray hairs and spurns and scorns their tears and prayers; I will tell you what will drive out the devils and expel the "unclean spirit." It is the arm of the law which takes away his manhood and degrades and humiliates him. The humiliation would seem to be enough when he descends to the gutter; but when he gets up and finds himself degraded, deprived of his property, divested of his rights and privileges, disfranchised and stripped of his manhood, with only the power of love left to win him back, and the most potent influences on earth have been brought fully to bear upon him. These are my views, gentlemen, upon the subject of asylums for inebriates. I do not believe they can be made fully available without such legal appliances as I have mentioned. I do believe they can be made fully so with them.

One purpose I had, Mr. Chairman, when I arose. If I understood Dr. Everts correctly, he had gotten in ahead of me in the line of thought. It was to switch off, run up, and get as nearly as

possible, even again. As to intemperance as a cause of insanity, I shall have but little to say. That it is so sometimes, even frequently, I think there can be no doubt. But there is as little doubt in my mind that it is very often, if not as often, the result or effect of insanity. It is a matter which I do not care to consider now, and not willing to occupy your valuable time, I shall have no more to say, except that I thank you for your attention.

Dr. COMPTON. Mr. President, I have a few remarks to offer upon the subject of Dr. Everts' paper. It is so admirable in its construction, in its language, and in the conclusion he reaches, that I think I could add nothing to it whatever.

It is in full keeping with Dr. Everts' paper that the progress of civilization brings about insanity; that the older the country, as a rule, the more lunatics will be found in it. The number of insane persons in England, is greatly in excess of the number we have here, according to the population. In Massachusetts it is greater than in Indiana, but I think it quite probable that in the case of California, we have one exception to that general rule, and that exception is due to the very cause alluded to as producing insanity among foreigners, persons who have left their homes on a voyage of discovery. According to Dr. Shurtleff's report, the number of insane in California, is greater than in most of the old States.

Dr. RICHARDSON. I have thought a good deal on this subject, but I fear I am not altogether unrestrained in my conclusions. I agree with the Doctor in saying that the practice of masturbation is a prolific source of insanity, and while a man may continue it after he becomes insane, it is no evidence to me that it does not frequently produce insanity. You may say that the man was insane because he took to drink, as well as to say he was insane because he practiced this habit. I have thought a good deal of the Doctor's method of treating inebriates. I think we ought to class drinking men or habitual drunkards, with insane men, and that they ought to be treated as such. The gentleman who has preceded me however, has had large experience with this subject, and knows more about it. I don't think that it requires anything further from me. I think this is one of the most meritorious papers we have had in a number of sessions, at least that I have heard.

Dr. HARLOW. I would simply say, that the subject which Dr. Everts has so ably laid before us, is one to which I have given a good deal of thought, and I am very glad he has laid it out in so

clear a light. I don't know that it would be of any practical good to discuss the various points he has presented, beyond spreading them before the public, as among the causes at the foundation of insanity. Does insanity arise from true civilization? It seems to me not, it seems to me it must be a false civilization, that would develop infirmity of brain. Is intemperance civilization? Is it civilization to drink alcoholic liquors? Is it one of the principles of civilization to disobey the laws of nature? It most certainly is not the true way of living. The true way is to obey these laws, and then, as Dr. Gray says, we should have very little of this terrible disease.

There is without doubt a hereditary tendency to insanity, and the only way, when that exists, is to live nearer the law, obey the laws of nature more strictly, more carefully. I do not know that I have anything further to say.

Dr. CALLENDER. At this late hour I do not feel like detaining the Association in discussing the paper of Dr. Everts, but take pleasure in concurring in the general expression as to its admirable style, and assenting to its main features.

It discusses one of the most important subjects presented for our consideration—the causation of insanity—and forcibly states many truths. Many of the special causes to which it alludes, however, are, in my judgment, incidental and secondary. By my observation heredity, the insane neurosis, and a constitutional predisposition to the neurosis, which are germane, and likely to develop into it, are the great fundamental causes of the disorder, and to these may be attributed eight-tenths of the cases observed.

Dr. SMITH. Mr. Chairman, as Dr. Callender has remarked, it is too late for any protracted discussion of this subject, but I can not allow the occasion to pass without saying that Dr. Everts' paper deserves the highest commendation of this Association, and with those who have preceded me, regard it one of the most entertaining and suggestive we have had, at any time, read before us. The Doctor presents very forcibly some of the prominent incidents of civilization, or influences that tend to develop that want of equilibrium or faulty organization, or, as Dr. Ray says, that something that lies back of the common exciting causes of insanity, and so predisposes some, that they became victims of the fearful malady under the operation of ordinary causes that do not affect the large majority. Among the incidents or disturbing forces of civilization, so clearly and so strikingly portrayed in the paper,

under the two terms, deprivation and excess, ignorance or the want of education is made most prominent under the first, and justly so. I believe the want of and misdirected early education exert a more wide-spread influence in laying the foundation for mental disease, than, perhaps, most other causes combined. The Doctor's allusions to masturbation and intemperance struck me with great force. My own observation, and the best information, at my command, have induced me to believe the habit of self-pollution exists to an alarming extent throughout the country, and is properly regarded a frequent cause of insanity. The Doctor thinks, and perhaps correctly, that the medical profession are responsible to a great extent for the wide-spread prevalence of this habit. It is apparent to every one that the medical profession, as a whole, come in direct contact, and form the most confidential relations with all the families throughout the country, and if each physician would impress upon the parents of all the families within the boundary of his practice the sad terrible results, physically and mentally, of this pernicious habit, in all their formidable magnitude; and that it is their imperative duty to lay aside every feeling of false delicacy and instruct their children and warn them in due time against a course, if persisted in, that will undermine the very citadel of life, who could estimate the influence for good upon this and future generations. It appears to me, Mr. Chairman, that our profession should no longer shun the discharge of a duty, so clear and fraught with consequences of such transcendent importance to society. The Doctor's remedy for intemperance, I think, is the only one likely to be attended with success. As stated, "heretofore, all the varied means have practically failed." I do not believe, with my friend from Kentucky, in destroying a man's manhood, but in sustaining it. Whenever the individual has reached the point, when his mental equilibrium is lost, and he is no longer the subject of self-control, let him, as the Doctor states, be declared of "unsound mind" and subject to constraint by law, "and make the institution" self-sustaining by variable and profitable industries. Depriving a man of his liberty a definite length of time, you give him an opportunity to introvert his thoughts and reflect upon the effect of his course upon himself, his family and society, which, in connection with proper moral instruction and influences, certainly tends to sustain and not destroy his manhood. As stated in the paper, let all discharges be conditional and a return to custody and labor, follow every relapse, and also increase the term of custody and labor with every relapse, and let it always be a fixed period

If this course should fail to accomplish the great end in view, no other occurs to me that would likely prove successful.

Dr. FORBES. The last remark or so reminds me that I should, perhaps, have been a little more explicit in some expression. The reporter for the *Press* yesterday morning made Dr. Gray to read as though he said "ornamental and physical" conditions of brain. I ought to have drawn a distinction between ornamental and physical manhood. It was not depriving one of his physical manhood that I meant, it was his ornamental, or at least legal manhood. I ought to be so understood. I will add that I approve Dr. Everts' paper most heartily.

Dr. BUGHTON. Mr. President, it is not necessary to add to the compliments so justly paid to Dr. Everts' excellent paper. I have, during the few years that I have been engaged in this specialty, given some attention to the potency of heredity in the production of insanity. So far as my limited observations have extended, I find heredity a more prolific source of insanity than is oftentimes admitted by the friends of patients. This opinion has been strengthened by careful inquiry into many cases where both friends and the examining physician state without reservation that there is no hereditary tendency in the case, and where careful inquiry reveals abundant evidence of hereditary pre-disposition to insanity. My opinion has been that seldom do we admit a patient into the Wisconsin Hospital, in whose case you can not within two generations find relations who have either been insane, or possessed of at least marked mental obliquity, or afflicted with those hereditary diseases that so frequently occur in connection with insanity.

Another point that impressed me was Dr. Everts' remarks referring to the influence of poverty. I think I have noticed this among the insane of Wisconsin that they come largely from the foreign classes in the State. Wisconsin is comparatively a new State. The northern part of it is unproductive and the people who take up these lands are largely foreigners. They work hard, are subject to the exposure necessitated by a rigorous climate, receiving but a scanty return from the soil, or from labor in the lumber districts, they live poorly and are insufficiently nourished. From these classes I say come a large part of our insane.

Again in the southern part of the State, the counties in the mining districts present the same state of things, overwork, exposure to wet and cold, lack of sleep, and bad nutrition, which seem to develop the hereditary tendency to insanity with unusual frequency.

The condition of these people suggests to one's mind that poverty is hereditary, as well as insanity.

The class of Europeans who come to this country are largely made up of the degenerate members of the family line; they leave their own country because they are unable to make a living there, lacking, as they do, those mental and physical powers that might win success at home, and they present the same deficiency here. They constitute the unfortunate side of the doctrine of the survival of the fittest.

In Wisconsin the per cent. of insane among foreigners is more than double that of Americans.

Dr. CHURCH. Mr. President, the paper of Dr. Everts evinces very deep and careful thought, but it is of that character that in my opinion can not be discussed very properly without a good deal of elaboration, and requiring a good deal of time. I understand Dr. Baldwin has a paper to read to-night, and I would be very glad to hear it. I would a good deal rather listen to that paper than to hear myself talk. I shall not therefore attempt to enter upon any discussion of this subject. I only desire to make a remark, with argument with reference to the doctor's remedy for intemperance. It seems to me the proposition is, sir, to convert our lunatic asylums into penal institutions, to deal with drunkenness as a misfortune, and as a disease. I look upon drunkenness as a vice that ought to be punished—a vice that ought to be restrained by force and by punishment, and I protest against making lunatic asylums agents for this purpose with the hope of reforming inebriates by depriving them of their manhood.

If the object of the gentleman be to cure the subjects of this vice by the disgrace brought upon them by confinement, let it be in the common prison, and not in a lunatic asylum. I would dislike to have it understood that it was disreputable to become an inmate of an asylum. If they are suitable subjects for it, we do not regard the confinement of our inmates as disreputable, or that because they are inmates of an asylum, they are robbed of their manhood, or disgraced, but if this is to be a remedy for one of the great vices of society, if all the intemperate are to be punished in that way, we must have still further enlargement of the sphere of insanity. But there is no reason for it. No gentleman can give a reason for placing such persons in asylums to be treated as insane, that will not also apply to the great social vice of prostitution, probably a vice that is productive of as much evil as that of intemperance. It has carried certain destruction and ruin into

thousands of families; and there is as much evidence that you can bring on that point to prove the insanity of prostitution, as can be brought to prove the insanity of the drunkard.

Dr. SMITH. Allow me to ask a question. I understood Dr. Everts to say in addressing the Association, that he intended separate institutions for the care of the drunkard, and they were to be operated and treated the same as insane persons?

Dr. CHIPLEY. If that is the mind of the gentleman, I make no objections to the establishment, and the separate institutions for them. We know that it would require only a few weeks to restore them in that way, and we would be compelled to discharge them, and in a short time they would be back again. We know that a great many intemperate men are confined in our penitentiaries, and remain there for months and years together, and yet, the very moment they acquire their liberty, they go after the very vice for which they were convicted, and that you find them in a few months, back in the same institution, so that their treatment and confinement has no effect whatever on their habits, and does not tend to cure intemperance. You must begin, as one gentleman has represented it, within. If the person himself determines on a reform, and will abstain from the intoxicating bowl, then the medical gentlemen can come in and effect a great deal. They can afford a great deal of relief from the nervous consequences that result from intemperance; and it is, sir, my opinion, that before the medical profession can be of any service to the intemperate man, the man himself must abstain.

First, there must be a moral reformation within, before the office of the medical man can be of any service whatever. I do not wish to enter upon any discussion of the other points. There is a fine philosophy running through the paper, and the objects expressed in it would require a great deal of elaboration to discuss them and the different principles laid down. Therefore, I do not wish to enter into the discussion, but I wish to enter my protest against the recording of every intemperate man as insane. There would be no limit to it. I would venture to say that if the doctrine prevailed, and the law was to be enforced, there would not be sober men enough in Cincinnati to-night, to take care of the insane.

Dr. FORBES. There is sometimes a rule in force—I do not know whether it is so here—prohibiting a member from speaking more than twice upon the same subject. I only rise now to protest against being placed in a wrong attitude, I think I said very

explicitly, that I would have the State provide an institution for this class of patients exclusively. I would not only recommend distinct institutions, but a law very similar to that affecting the insane at present. Let it carry with it something of a penal idea, if you please, but at the same time, let it be an act contemplating the treatment of the insane, because a man who is insane from drunkenness, is as truly insane, as another who is so from any other derangement of his mental faculties. As I said before, he is not more nor less. Treat him as insane, discharge him when cured, but still let him remember that the same law which sent him before, will send him back, in the event of his falling into his old habits. I know one instance, where a man was tried and convicted upon a writ of lunacy, which was from drunkenness. It had the effect of reforming him without his having been sent to an asylum. The law cured him, in my opinion, just as certainly as twenty grains of quinine ever cured an ordinary intermittent. It placed his property in the hands of a committee, and reduced him to the condition of a minor. Such I believe will be found to be the effect generally where tried. I only rose Mr. Chairman, to try to make myself more fully understood.

Dr. Exsor. Mr. President, I did not intend to say anything upon the paper, for I do not feel that I am competent to discuss it. But I think I am in possession of a few facts which I wish to add in support of the position taken with reference to drunkards. I think I can give a little testimony on this point that may be of some value. In South Carolina, as elsewhere, we have a great many drunkards, chronic habitual drunkards. There is no Institution there for the care or reformation of this unfortunate class. The consequence is that when these inebriates become so bad as to be a nuisance in the community, or an intolerable burden to their friends and families, or as sometimes happens, a desire for reformation comes over them, and they, feeling their own weakness, ask to be sent to the Asylum, they are examined in conformity to the law for lunatics, and declared to be lunatics, and are sent to the Asylum for lunatics, as such. They are put upon the same footing precisely that the other insane are. They are dispossessed of their legal manhood, and are as dead to the law as any other lunatics. They are not only detained then as lunatics till they are over the immediate effects of a long debauch or delirium tremens, but they are kept there for many months, until they are supposed by the officers of the Institution to have sufficiently recovered their moral powers, and I hold that drunkenness is but a form of moral

insanity. I say they are kept in the Asylum till they have sufficiently recovered to abstain from the intoxicating bowl. They come to see the terrible consequences of their habit, and in most instances to feel an earnest desire to abandon it. Many cases leave the Institution entirely restored, and do not resort to drink again. But there is another feature in the evidence, I propose to present, that I think a little more to the point, showing forcibly the necessity of some such law, as the gentleman, who has just addressed you, has indicated. When this class of our inmates are sufficiently restored to warrant their leaving the Asylum, we are not in the habit of giving them a final discharge at once, but grant them a leave of absence or discharge them on probation, put them on their good behavior, if you please. We say to the drunkard when he leaves the Asylum, now, sir, you are not discharged, you are simply allowed to leave the Institution on trial, as it were, as long as you behave yourself, as long as you keep sober, and do not fall into your old habits, you will not be remanded to the Institution, but remember you are still under the jurisdiction of the Asylum, and the moment you fall into your old habit of drunkenness you will be arrested and placed in the custody of the Institution. This, I think, has a good influence, he does not want to return to prison, he does not want to be deprived of his liberty, and the constant dread of being placed in the Asylum again, is, I believe, a great aid to the reformed drunkard. Of the considerable number that we have had under our care during the past several years, only one has not been permanently benefited. I believe, therefore, that but few drunkards would not be permanently benefited, if not entirely cured, by a somewhat extended sojourn in an Asylum, or some other place of confinement, where they could receive medical and moral treatment. I believe with the gentleman who has just taken his seat, that if laws were passed in each State that would put the drunkard upon the same footing with the lunatic, and require his confinement in an insane Asylum or some other Institution established for the purpose, immense benefit to society would be the result.

Dr. CHIPLEY. May I ask the gentleman a question? He says it has a wonderful effect upon this class of persons and that only one has fallen from grace. In Cincinnati they have a workhouse in which there are hundreds of persons confined for drunkenness and acts resulting from it. The law requires them to be confined thirty, sixty and ninety days. They are confined for drunkenness, and put to hard labor, cracking stone and living upon

very hard fare, and they remain there for the length of time I have stated, and are then discharged with the threat that if they are again sent up for drunkenness they will be put to the same labor and the same confinement. Now I desire to ask the gentleman wherein his authority can have more influence than that threat which the law holds over these men; that if they disobey the law again and become drunkards, they will have to be restored to the workhouse?

Dr. ENSOR. Many drunkards do not have the same repugnance to a workhouse that they do to an insane asylum. It should not be the case, but almost every one has a mortal horror of a lunatic asylum, and that perhaps operates on the mind of the drunkard to restrain him in some degree. Besides, the drunkards who go to the workhouse are a very different class of men from these who are placed in an asylum. Moreover there is nothing done in the workhouse to improve the man's moral character. As a usual thing the food is bad, the association is bad, and the whole moral atmosphere of the place is bad. What improvement could be expected from thirty days' confinement in such a place! I do not know how else to account for it. I was speaking chiefly of my own observation and experience.

Dr. BALDWIN. If a patient dies while absent is the death reported?

Dr. ENSOR. If a patient is absent several months and does well, he is finally discharged. If he should die before receiving his final discharge, his death is recorded on the books of the Institution.

Dr. BALDWIN. The question that arose in my mind was simply this. Would not a man who had been discharged in this way, have a good right to obtain the relief of a writ of *habeas corpus*, and be removed from the jurisdiction of the asylum? This can not be done in the case of an insane man. But you keep a drunkard and who probably has never been a lunatic in that way, and deprive him of his liberty, I doubt whether any law in the land would sanction that. It may be so in your State. I do not know the laws of the different States; if that is the law I would simply ask for information. I know it could not be done in Virginia.

Dr. RAY. It can not be done in Pennsylvania.

Dr. GUNDRY. Any man can ask the right of *habeas corpus*.

Dr. BALDWIN. Is it a legal proceeding to hold a man in subjection to the rules of an asylum for three or four months after his sanity has been established? Is there a regular legal enactment that would justify such action?

The PRESIDENT. The question is scarcely germane to the discussion of this paper. Under the common law, that prevails in every part of this country, such a party would be at liberty to resort to the writ of *habeas corpus*, and if discharged by the court, he would be as free as anybody. The course that would be pursued would depend entirely upon the condition of the patient, and the view of the court, just as it would in all other cases, in which the state of mind was the question for judicial decision.

Dr. EVERTS. Under the circumstances I should feel no disposition to reply. I would simply say, for the benefit of my friend, Dr. Chipley, that the principal object of this method of treating the intemperate, or drunkard, is to relieve our insane hospitals of their presence. Six years ago I drafted a law, having this object in view, for the State of Indiana, but did not succeed in getting the bill passed. The object is to make a State institution for that class, and make it self-sustaining, providing that it be sustained by their own labor, and giving credit for all they earn by their work. I think that I can answer the question that has been propounded to my friend from South Carolina. The difference between the influence exerted upon men discharged from the insane asylum, and those from a workhouse is, they are better fed, better clothed, and more humanely treated in the one than in the other, their self-respect is increased and built up, and they go out from the asylum better men than they do from the wards of a workhouse—they go out with an apprehension that they have lost the respect of their fellow citizens.

On motion, the paper of Dr. Everts was laid on the table.

After discussion in regard to the proper mode of proceeding, it was, on motion, resolved that Dr. Baldwin read his paper to-night, and that a meeting be held in the morning for discussion.

Dr. Baldwin then read his paper on "Furloughing Patients."

On motion, the Committee on Resolutions was requested to present their report.

Dr. A. E. Macdonald then reported the following, which were unanimously adopted :

Resolved, That our visit to the Pennsylvania Hospital for the Insane has afforded us the opportunity of discovering how well-

deserved are the confidence, which has so long and generally been extended to its management, and the celebrity, which it has attained, and that to our esteemed associate, Dr. Kirkbride and his lady and to their solicitude for our comfort, we owe it that our visit was socially, extremely pleasant, as well as professionally, extremely profitable.

Resolved, That we are indebted to Dr. Worthington and his associate officers for one of the most pleasant incidents of the occasion in our visit to and inspection of the Friend's Asylum for the Insane, and that the neatness, order and home-like appearance of the building, and its appurtenances reflect credit upon a society which is associated in the minds of all of us, with the records of the noblest deeds of charity, humanity and brotherly love.

Resolved, That while we gladly bear witness to the cleanliness, neatness and general good order that met our observation in our visit to the Insane Department of the Philadelphia Almshouse, and which reflect great credit on Dr. Richardson and his associates, we were grieved to see in the crowded condition of the apartments and grounds of the patients, in the want of land for the purpose of employment, and in the manifestations of restlessness and excitement, a great deficiency of those means and appliances for promoting the comfort and restoration of the inmates which are now to be found in every State Hospital in our country. In a city like Philadelphia, not deficient in wealth, justly proud of its culture and of its many institutions engaged in works of benevolence, this state of things can be designated by no more fitting term than that of disgraceful. Our own people and the stranger from abroad expect to find here public hospitals for the indigent insane, representing in the highest degree, the intelligence, humanity and ready appreciation of the improvements of the time, now witnessed in such institutions in our own and other countries. In more than one instance, we are pained to say, has the City of Philadelphia been recently exposed by men of intelligence and professional responsibility to the censure of the world, for the manner in which it cares for its indigent insane, and with the profoundest mortification—as citizens of a common country—we are obliged to admit that the censure is abundantly justified by the facts. In the establishment of hospitals by the State, sufficient to receive, without crowding, all of its pauper insane, and in that only will be found an adequate remedy for the evil we complain of, and we trust that no suitable effort will be longer neglected to obtain the required legislation for this purpose. On the part of the State, it will, in

such action, be simply discharging its duty to a class of unfortunates who are in every sense of humanity, if not in law, its rightful wards.

Resolved, That the Association considers that it has been highly honored by the presence, at its reunion, of a lady whose enlightened views and earnest practical efforts, have made the name of Miss Dix a household word in all our charitable institutions, and among all those who have at heart their well-being and advancement.

Resolved, That to the Academy of Natural Sciences of Philadelphia, we owe our thanks for a courteous invitation to visit their building and inspect their collection—an invitation which, unfortunately, owing to the press of the more legitimate business of the Association, we have been compelled to reluctantly decline.

Resolved, That to the representatives of the press of the city of Philadelphia, for their record of the proceedings, to the proprietor of the Continental Hotel for the use of a commodious and comfortable room during its business session and for other courtesies, the Association is under obligations which it desires herewith to formally acknowledge.

On motion the Association adjourned to 10 A. M. Saturday.

JUNE 17, 1876.

The Association was called to order at 10 A. M., by the President.

THE PRESIDENT. The first business is the discussion of the paper read last evening by Dr. Baldwin. Dr. Kirkbride, will you open the discussion?

DR. KIRKBRIDE. I should rather have preferred Dr. Baldwin to have been present, to hear what little I have to say, but I am perfectly willing to go on.

THE PRESIDENT. I suppose that we would all prefer to have him here, but the time has arrived, and passed, and we hope not to sit long here this morning.

DR. KIRKBRIDE. I agree with you fully in that respect, and am very much surprised to find that Dr. Baldwin is not present. If it had not been for that I do not know that I should make any remarks at all, because I think that this matter of "furloughing

patients," as it is now called, but which we used to speak of as "going home on trial," is no novelty whatever. I would not have my friend, Dr. Baldwin, suppose that he has got upon "a new departure." I am sure I have been doing this very thing since 1841, nor have I seen any indication for ceasing to do so. Each case, however, must be considered by itself, and I think that every superintendent must be the judge of its propriety, and it seems to me that we shall all ultimately arrive at about the same conclusion. I mentioned at Auburn it has been my misfortune to have many serious accidents occur when patients have been out on trial; enough, at least, to make me very careful in this particular. Now, there has been a good deal said in certain quarters about hospital made patients, but I am very free to declare that I have never known a case of that kind. I do not want to contradict anybody who has had such cases, but I must acknowledge that if in my hospital, I thought any patients were made insane by being there, I should feel that there was something the matter, either with the Hospital or with me. I should assume that as a matter of course, and I am not willing to acknowledge that either our Institution or its officers have made any cases of insanity. I have never seen a case that I could attribute to anything of the kind. Any conscientious superintendent who thought that a patient was made worse by being in a hospital would certainly recommend his removal.

Some allusions that have been made, led me to say that there has been a great deal of talk in certain quarters about patients living in cottages, and home treatment and things of that kind. Now it seems to me that home treatment has always been tried and has always failed before a patient is sent to a hospital at all. I think it ought to be tried, and I think it ought to fail before anybody is sent to a hospital. I do not think we are showing any great confidence in ourselves, if, after a short trial, we send the patients back to their homes to go over the same course again. My own experience has been that the patients, as a general rule—I do not mean to say that there are no exceptions to the rule, but as a general rule—are better and safer to remain in the Institution until they are perfectly well. I am quite sure that is the safest ground. This matter of having patients placed in detached cottages has been discussed over and over again, and I have seen no new arguments in its favor. Any one who reads the newspapers must know that there are constantly occurring the most serious kinds of accidents from insane people being at large. Some years ago I took the trouble to record what I noticed in my usual newspaper read-

ing, and I was startled to find how great was the number of accidents that were occurring. It is a fact that during that year more persons lost their lives and were injured by insane persons being at large than by all the railroad accidents that occurred during the same period.

The PRESIDENT. In what district?

Dr. KIRKBRIDE. I took the lists that were collected in the Philadelphia newspapers. I mean to say that there were more lives lost, and more people injured, than by all the railroad accidents in the United States. In particular years there have been great railroad slaughters, which would make a different result, but for that particular year, the fact was as I have stated it. Well that was saying nothing either about the great sorrow, the great grief that is brought into families. I think it is often a most serious thing to have an insane person sent into a family, especially where there are children—to have a father, mother, sister, or brother insane, and kept in the family. It is a serious question whether that should be done at all. Then again there are other things occurring, besides loss of life, and personal injuries, and domestic sorrows, as you all know; the burning of buildings, the destruction of property, and a great many things that could not have taken place, if the treatment of the patients had been in a hospital. Many of these insane acts are done too, by people from whom you would have least expected them. I do not wish to detain the Association with what is just as familiar to others as to me. I only wish it understood that I regard furloughing, or allowing patients to go home on trial, as no novelty and that it is not unattended with risk. I would further say, as I have before remarked, that every superintendent must judge for himself about all these cases and about the propriety of the measure; and that I think ultimately, we will all arrive at about the same conclusions. I must confess the more I have tried it, the more conservative I have become in this particular.

Dr. STEARNS. Mr. President, I think there can be little difference of opinion in relation to the importance of retaining patients in our hospitals until they are fully recovered as a general rule.

At any rate this has been my practice and I presume that of Dr. Baldwin. In fact the period of convalescence is oftentimes the most critical in the course of insanity and requires special care and management that it may pass into a state of recovery. During this period the mind is peculiarly sensitive to unfavorable influences in the same way and perhaps, to a greater extent than are the

lungs in convalescence from pneumonia, or the bowels in that of typhoid fever. In insanity we recognize some change in the brain as the basis of disease whatever its nature may be, and that, during the passage from disease to health, improper management may easily arrest recuperative action. Hence the importance of special care until recovery is fully established. The question then is, are there exceptions to this general rule, and if so, what are they? I think there may be, but how to describe them fully is not easy. We can not make a rule applicable under all circumstances, and therefore each one must decide for himself. In a general way, however, I would say that in cases of recurrent mania after the patient has passed through several attacks, and is recovering from another, we may discharge, trusting him or her to influences outside the institution, much sooner than we would be justified in doing in the case of one recovering from an attack the first time. In such cases I conceive that the tendency to recovery (I mean temporary recovery) is much stronger than in primary cases, as the brain has become accustomed, if I may so speak, to passing through the abnormal condition which constitutes one of these attacks.

I have once or twice sent home patients while in the early stage of convalescence from recurrent mania, when they were specially anxious to go home, the desire amounting almost or quite to homesickness, and when they were annoyed by the surroundings of the Asylum, and with favorable results. I think it is a mistake to suppose that because an Asylum is the place most conducive to recovery in the large majority of cases, therefore it is in all. There may be such peculiarities of temperament and constitution as will render an institution unfavorable to recovery, though in the earlier stages of disease it was the best place. Again, I think the exigency of circumstances may be such as to warrant the furloughing of patients. An institution may be full while there is pressing need of admission by those who are suffering from acute disease, and with no other provision for treatment. It may be better to take the risk of unfavorable results than to fail in providing for those greatly needing admission. The surroundings of patients when in their own homes, may also be considered an element in the question. A patient could return to a home in the quiet of country life, much sooner than if his house was in a city, and when he would be at once surrounded by the excitement and activity attendant on a residence there. I fully realize the importance of great care in the selection of these cases, but with such care on

our part, I think the practice justifiable and the correctness of this view appears to be confirmed in a measure, at least, by the experience of our English and Scotch confrères. Each one, however, must judge for himself, and limit or extend his practice according to the character of those under his care, and the exigency of circumstances.

Dr. LANDFEAR. Mr. President, I am probably the youngest member of the Association in experience as superintendent, and I have thought that a little modesty perhaps would be becoming but still I must say that I agree with the gentleman who preceded me, that the rule should be to retain the patients until they are fully recovered. I have seen in the course of several years' observation in an asylum, very frequently beneficial results obtained from allowing persons a furlough, one of the most unfortunate things, I think, resulting from this, allowing patients to return home, is the persistence with which the friends of other patients claim the discharge of their friends, on account of the good results that have followed the furlough of other parties. I know that has been the experience in our Institution. Some exceedingly home-sick patients, for a time after being furloughed, seem to do well, but soon become worse and are returned to the Asylum. Others, although not fully recovered, are greatly improved, while a third class seem fully restored. It will not be long before the minds of some other persons in that community are impressed with the idea that their friends are in the same condition as this one who has been furloughed, and insist on their being discharged. I think that every one must be his own judge. Every superintendent, by watching these cases and observing them closely, can decide for himself, whether they are fit subjects for a furlough.

The PRESIDENT. Mr. Wells, a member of the Board of Public Charities, of Pennsylvania, is present. The Association would be glad to hear any remarks that he may be pleased to make upon the question before the Association, which is the practice of furloughing patients from our Institutions for the insane, or discharging them, before they are supposed to be recovered, on trial, with the hope of benefiting them by such a discharge or residence at home.

Mr. FRANCIS WELLS. Mr. President, I am not here this morning to take a part in your debates. I came in response to your very kind invitation extended to our Board to take a seat in your body, and to apologize for the tardiness of our response. But the Board of Public Charities was called out of the city yesterday, on duties

which occupied the whole day, and it was therefore impossible for us to make our respects to you at an earlier moment. I have only come in this morning at your closing session to acknowledge the courtesy that has been extended to our Board, and to explain why we have apparently been remiss in responding to it, as very gently conveyed to me just now by my old and worthy friend, Dr. Kirkbride. The subject, that you are now discussing, is one which I think is a scientific question belonging to you, gentlemen, to discuss and determine and to act upon. It is not one of those questions that come more directly within the scope of the duties and consideration of the Board of Public Charities.

I would therefore prefer not expressing any opinion on the subject for the simple reason that I do not think that my opinion would be of any value.

It would gratify me very much on behalf of the Board of Public Charities, if I might crave the indulgence of the Association for a very few moments, and call your attention to another point, connected with your Association, which interests us greatly, and which, while it is not in the exact line of the debate now going on refers directly to the subject which was principally before your session yesterday. If the Association will grant me the privilege of a very few moments of its time for this purpose, I shall be most happy to avail myself of it.

The PRESIDENT. Unless objection is made you will proceed.

Mr. WELLS. I only desire, sir, in behalf of the State of Pennsylvania and the Board of Public Charities, which represents the State of Pennsylvania, in relation to the insane poor, to correct a very grave misapprehension which has gone out to the public, unwittingly I am well satisfied, in the publication of the proceedings of your highly respected body yesterday. It is important that that misapprehension should be corrected promptly and while you gentlemen are all here together. I want to state here very simply what the State of Pennsylvania has already done in regard to the relief of the insane poor of Philadelphia. It is evident from the resolution adopted by your body, yesterday, that the Association is under the impression that the State of Pennsylvania has done nothing to relieve the great want now existing in the Philadelphia Almshouse. Your resolution called upon the State to do something. My esteemed and respected friend, Dr. Ray, expressed to you, yesterday, the conviction, which is the conviction of the Board of Public Charities, that the State of Pennsylvania is bound to do for its Philadelphia insane poor what she has done for

the rest of the State, and the State of Pennsylvania has now taken the most important step in that direction, for which credit is due and which should be clearly understood by your Association, representing, as it does, the care of so large a portion of the insane poor so far as hospital care is concerned in this country. Two years ago the Board of Public Charities suggested to the Governor of this State and urged upon him the matter of a recommendation to the Legislature of the State, that a provision for a hospital in this section of the State for the relief of the Philadelphia Almshouse, should be made. Governor Hartranft promptly responded to that suggestion and in his two last annual messages, urged upon the Legislature, the importance of such a provision.

At the last meeting of the Legislature, a bill carefully and thoroughly prepared by the Board of Public Charities of this State, was presented to the Legislature and urged upon its favorable consideration. That bill provided a hospital, the main object of which is to relieve the insane poor, whose condition distressed you, gentlemen, so much and so naturally in your visit on Wednesday last. We have not, therefore, left this matter to cure itself by becoming still worse than it already is, as was suggested yesterday, but we have been earnestly engaged for two years past in providing the relief which the State of Pennsylvania has now bountifully provided. When this bill was introduced in Harrisburg, it met with skilful and determined opposition, which took the form of a counter-measure of legislation, which aimed at providing a hospital in the State of Pennsylvania which should exclude from its benefits the very class that we were laboring to relieve, to wit, the insane poor in the Blockley Almshouse. It proposed to provide hospital accommodation for certain counties of the State which are now provided for in existing hospitals. That object was finally overcome, and that project was defeated, and the State of Pennsylvania has provided a large accommodation in the form of a hospital, capable of accommodating, at least six or seven hundred patients, if necessary, to relieve the very want which we have ever since the Board of Public Charities has been in existence, been painfully aware of in Dr. Richardson's Hospital. I want to place it upon your record, that the State of Pennsylvania has done this already for the insane poor. She has done for Philadelphia, now for the first time, what she has hitherto been doing for the rest of the State.

Now, sir, I want to correct one more most important misapprehension that has been sent abroad. I wish to correct the im-

pression, which has most unfortunately, I say it with the utmost kindness and courtesy to the gentlemen who have conducted your debates, most unfortunately been given to the public and to yourselves as representing all the States in this Union, that this project which had not in view at all the relief of the insane poor of Philadelphia Almshouse, was defeated by men, I will quote as accurately as I can from the published reports. "Men who desired to handle the funds appropriated by the State of Pennsylvania, for the erection of a hospital at Philadelphia." I am glad to come to you this morning, sir, and in behalf of the Board of Public Charities, say here, that that project was defeated by the Board of Public Charities openly, thoughtfully, conscientiously and properly as we believe; and in stating this fact, I think it is all that is necessary for me to state, to correct the misapprehension that has gone abroad, that it was defeated by men who desired to handle the public funds or any other funds. You will see, gentlemen of this Association, that it is very important for the honor of Pennsylvania, and for the honor of Philadelphia, and for the honor of the Board of Public Charities, which represents Pennsylvania, in the care of the insane poor, that it should not go upon your records, and to the community through your proceedings, that the Board of Public Charities of Pennsylvania, is doing its work in this State, for the purpose of handling the public funds in the erection of public hospitals.

Dr. KIRKBRIDE. That was never intimated nor intended.

Mr. WELLS. I do not believe it was.

Dr. CURWEN. Excuse me one moment. I made a statement yesterday which the printer has published very incorrectly. I had no more reference to the Board of Public Charities, than I had to myself. The statement I made yesterday was simply this: "All the opposition to this project for a hospital in Philadelphia, came from members of the Legislature, who stated to me distinctly that they were afraid the money appropriated by the Legislature for that purpose, would pass into the hands of a certain class in the city, who would not allow it all to be used for the purpose designated, and that deviation they wished to prevent."

Mr. WELLS. I have taken it for granted that it was a mis-statement; you have all seen the statement, and, I think, can appreciate the position in which we have been unfortunately placed, a position partially due to the fact that the Board of Public Charities, in relation to this work for the Insane poor of Philadelphia, has not been credited with the work which it has already done. Now, there

was no other project; the project that was defeated before the Legislature, was not a project for the relief of the insane poor of Philadelphia at all. It was a project for the construction of a hospital that lay altogether outside of Philadelphia. That was the project that was defeated. That is the project that I referred to as having been defeated, through the influence and direction of our Board, and I only wanted to come here this morning, and so far as we were concerned, set the matter right. So far as it concerned others, they must take care of themselves. I know nothing about them. I only want to come here and say that we want it distinctly understood by this Association, which is a power in this land, as it ought to be, that we have been laboring for years to relieve that which has been a crying evil in the State, and that we have at last accomplished that which your Association, yesterday, by its resolution, expressed the hope would be accomplished at some future time. I think it would be gratifying for you to know that a work of necessity, which you appreciate so highly, is already begun, and before you shall meet in Philadelphia again, I have no doubt at all that that work will be far onward towards its completion. That is all I desire to say in regard to that matter. I would only like to say a single word, sir, before I sit down, on a little different subject, and that is to express my regret that I was not summoned to Washington, during the recent investigation, to add my testimony to our unfortunate and persecuted friend, Dr. Nichols' character, before the country. I have made repeated visits to his hospital; I knew it well as I knew its superintendent well, and I must say, gentlemen, that if every one of your hospitals can sustain an investigation as well as the Government hospital, at Washington has done, you are a happy company of gentlemen, and eminently worthy of the position which you all occupy.

Dr. KIRKBRIDE. I think I shall have to say a word or two on this subject, I know that my friend's relations to me are such that we generally talk freely to each other and about each other.

Mr. WELLS. Yes sir.

Dr. KIRKBRIDE. I think I know the disposition of the Board of Public Charities, and I believe that they would provide for every insane person in the State if they could do so.

Mr. WELLS. Yes.

Dr. KIRKBRIDE. And make the best hospital provision for them, but when my friend says the work we recommend is already done I can not agree with him.

Mr. WELLS. I do not say it is done, I say that work is already begun.

Dr. KIRKBRIDE. As I understand it, this is the actual state of things in the Almshouse. I think that perhaps, the report that is taken down might give the impression that a great deal of work has already been done, while I think very little, comparatively nothing, has been done to relieve the Almshouse. After you hear my statement you may judge between us. The State of Pennsylvania, as I understand, and I hope Mr. Wells will correct me if I am wrong.

Mr. WELLS. I will with pleasure, Doctor.

Dr. KIRKBRIDE. The State of Pennsylvania, I was about to say has made an appropriation, of what amount do you think? Of \$25,000, and for what? Why to begin the provision for twelve hundred insane people now in the Philadelphia Almshouse, and also to provide for the insane of six other adjoining counties! Now that in my estimation is a perfect farce. How long at that rate will it take to complete it? The Hospital that was recommended by the Medical Society of the State of Pennsylvania, to which and to its very active and intelligent committees, I must say we are indebted, more than to all other causes combined, for the last two hospitals for which the State has made provision, I mean that at Danville, and that at Warren, recommended that a hospital should be provided for this south-eastern district of the State particularly, and excluding the City of Philadelphia. Why did they propose to exclude the City of Philadelphia? Because they regarded it as a folly to think of putting the insane of Philadelphia with the insane of six other counties, in one hospital. We all agree that six hundred should be the maximum for any hospital, and do we wish to exclude Philadelphia from the State's bounty? Far from it. We wish Philadelphia to have two hospitals for herself in addition to the hospital recommended for the south-eastern district of the State, and my friend knows, as well as any one, that in addition to the State Hospital recommended for these counties of Pennsylvania, two hospitals of the largest capacity are wanted for the City of Philadelphia. My view has always been, as it is now, that the State should make that provision. The City of Philadelphia pays a large proportion of all the taxes collected in the State, and our afflicted people have the same right and the same claim to the protection of the State, and for its supervision and government of these institutions, as the County of Berks, or any other.

Now I can not but believe that it was very unfortunate that this project of the State Medical Society was defeated. The project to provide for the insane of Philadelphia has never been opposed by those connected with the hospitals for the insane of Pennsylvania. They have been the most earnest advocates of such a measure and that they are so is on the record. I make these remarks to show that there are two notions on this subject, and that the medical profession of the State do not merely agree with the Board of Public Charities, and that any want of success is evidently not the fault of any of your members. I have the highest respect personally for the members of the Board of Public Charities, but I think that, in this matter of caring for the insane, the medical profession have a right to an opinion as to what is best as well as these excellent gentlemen to whose philanthropic labors I would give the highest credit. I think I appreciate them as highly any one else, but the City of Philadelphia wants two hospitals of her own, for the accommodation of her twelve hundred insane instead of what you have seen in the Almshouse, a state of things which ought not to be allowed to exist for a single day. My own plan, long since suggested, I think, would have met the case, and this was that a hospital should be put up at once for six hundred male patients, while the six hundred females remaining could have been comfortably accommodated in the present building until a second hospital could be provided for them.

If we can not do all this, Mr. President, we shall never do what ought to be done for the City of Philadelphia; no other plan, certainly nothing less, will meet the present urgent wants of this community, or remove the opprobrium which now rests upon the city, to which belongs the honor of making the first hospital provision for the insane in America.

Mr. WELLS. The Doctor asked me to correct him where he was wrong. I will do it very briefly. I did not think my remarks would run into anything like a debate. I will correct the Doctor where he is wrong, as he kindly asked me to do. The bill which has been passed does not only carry with it an appropriation of \$25,000, but it provides for an appropriation of \$600,000, which it will undoubtedly get as rapidly as the money will be wanted. We would have asked for a larger sum at the outset if we could have got it, but those of us who are acquainted with Pennsylvania finances, and Harrisburg legislation, knew that we must ask for such an appropriation as we could get, and be satisfied with what we got. It certainly would have been a very poor provision to

make \$25,000 do the work for twelve hundred patients in Blockley Almshouse, but this bill was limited in its scope to about half that number, so that really the bill provides exactly for such a hospital as Dr. Kirkbride has said was in his mind.

Dr. KIRKBRIDE. On the other hand, six counties are added to Philadelphia.

Mr. WELLS. Two of the counties were added on that bill not by the Board of Public Charities at all. They were forced on to that bill, under circumstances which I need not discuss now, because it would lead us off into a wider discussion than would be proper. It was not part of the scheme of our bill at all. Our purpose was simply to make provision for the extreme southeastern corner of the State. You know the counties of Delaware and Chester are small, and have very few insane poor requiring hospital accommodation, and it did not make any difference in the main scheme. The hospital is designed for six hundred people, and as they are to be removed from the Blockley Almshouse, it will afford exactly the relief which Dr. Kirkbride has long looked for and desired. The other bill which I find for the first time, is credited to the Medical Society of the State of Pennsylvania.

Dr. KIRKBRIDE. Yes it is so undoubtedly.

Mr. WELLS. It excluded the City of Philadelphia entirely from relief, and the purpose appeared to be to try to force Philadelphia to take care of her own insane poor. There is no reason why Pennsylvania should not take care of her insane poor in this county as she takes care of the other insane poor of the State. There is greater reason why she should take care of the insane poor of Philadelphia. Philadelphia pays one-third of the taxes of Pennsylvania, and is therefore pre-eminently entitled to State care and State provision for her insane poor. This bill is, of course, inadequate to take care of the twelve hundred people in the Blockley Almshouse. It is not necessary, as Dr. Kirkbride has indicated to you, and he is right in so saying, it is not necessary for the relief of that number, that you should take the whole number and put them in another house, in fact it would not relieve their crowded condition. But if we take half the crowd away we do relieve it eventually. This is what this Hospital proposes to do, and when Pennsylvania has built this Hospital, which she will build as rapidly as she can, consistently with proper building, she will have taken away the odium which now rests upon her, and which you, gentlemen, have openly and naturally expressed in regard to the condition of the insane poor. I do not believe there is any differ-

ence of opinion on the subject at all, between the Board of Public Charities and the medical gentlemen around me on this subject. I believe that we all desire the same thing, though we may not work by the same methods, or exactly on the same lines. I only wanted to say at the outset, that the work that has been done by the State of Pennsylvania for the insane poor, should be recognized at this time by your Association, and that it should be distinctly understood, that in carrying out the project, that has been carried out, no motive, no interest, no impulse of any kind has been at work, of which I have any knowledge, such as has been complained of by Dr. Curwen this morning, as having been instilled into his ears at Harrisburg, by members of the Legislature. I presume that our Legislature is not different from all other Legislatures, but we can find here and there, even in a Pennsylvania Legislature, a gentleman who will suppose that legislation always puts money into the pockets of some one here and there. Perhaps there are such men even in the Pennsylvania Legislature. I only wanted to prevent any imputation from falling upon our own Board, which I knew was not meant to be put upon it, and to state clearly to you here to-day what Pennsylvania has done for the insane poor of this city.

The PRESIDENT. The Chair is under the apprehension that the subject is now well understood, and that the corrections that Mr. Wells desires to make will go upon the record, and any misapprehension will be removed.

Dr. KIRKBRIDE. Mr. Wells is entirely satisfied that the Board of Charities is not intended to be referred to in the slightest degree.

Mr. WELLS. I am, if I had supposed that for a single moment, I do not think you would have seen me to-day.

The PRESIDENT. The subject of discussion will now be on the paper. The gentlemen will confine themselves to the subject of the paper.

Dr. KEMPSTER. Mr. President and Gentlemen, it occurs to me that Dr. Baldwin may have overlooked one point, in reference to the removal of persons who are still insane from the English Asylums. There is a great difference between the methods pursued abroad, and those followed in this country. As I understand it, when English Institutions desire to get rid of any of their insane, they are drafted from the institutions devoted to more acute cases into those prepared for chronic cases, or into the workhouses. Until recently they were not at liberty to allow persons to return to their homes. Many of the members of this Association will

recall the discussions carried on by superintendents in England and elsewhere upon the continent, relative to the dismissal of patients from hospital supervision, and permitting them to return to their homes, or to the care of persons who were allowed a small amount per week by the government to look after the so-called quiet and harmless insane. I am not aware that Dr. Baldwin has alluded to this matter in his remarks upon the quotations made by him from the English reports.

In looking over the reports from the American Institutions for Insane, it will be found that a large number of persons are annually discharged improved, that is, they have left the Institution, not cured, but so much benefited that it is considered safe to permit them to return to their homes, a practice however, which I believe to be of questionable propriety, but which necessity seems to demand. I think that the condition of those who are thus discharged, and the condition of those whom the Doctor would furlough, and whom our English brethren have lately permitted to go to their homes, is precisely the same. I do not believe that there is a superintendent in this country, who would retain a patient in his institution for one day, if he believed that person would be benefited by returning home, whether the case was acute or chronic. I was struck by the remarks made by Dr. Kirkbride, that the home treatment had been generally thoroughly tried before the person was brought to the hospital. Another point must not be lost sight of, I allude to violent acts committed by insane persons, and especially killing and arson.

Some years ago, while connected with the New York State Lunatic Asylum, I looked up and made a record of the mental condition of those persons who had committed these acts, prior to admission to the Asylum, for a series of years, and I was astonished to find that the great majority of overt acts of this character had been committed by persons who, up to the time of the commission of the act had been regarded as insane, but quiet and harmless, very few acts had been committed by the maniacal. Subsequent experience has confirmed the inquiry instituted at that time, and the reports from the several institutions, so far as they mention the fact at all, bear out the statement, that the acutely maniacal rarely commit either arson or murder, and that the majority of these acts are committed by those who have hitherto been regarded harmless, excluding those who kill while in a condition of epileptic fury, or who are in the somnambulistic state which sometimes follows an epileptic seizure; and there are bu

few cases of recovery where murder or arson have been committed by maniacal patients. At the present time there are in the Institution at Oshkosh, nineteen persons who have committed arson, and three who have taken life, and of these twenty-two, not one was considered dangerous before the act had been committed. Of those who had committed homicide, one in particular has attracted notice; this was a lady, who, for some years, had been regarded eccentric, and by many insane. She had traveled extensively, had been abroad, and had visited many places of interest in our own country, and every where had attracted attention by her peculiarities, but no one supposed she would commit a terrible act. After a railroad ride of several hundred miles, she took a carriage at the station, inquired for the residence of a prominent physician living in Milwaukee, rode to the house, and quietly asked a little boy, a son of the physician she sought, if his father was at home. The father came to the door in response to her summons, and was immediately shot down, and died in a few hours. She then asked the coachman to drive to the office of another prominent physician, but the driver feigned ignorance of the locality; she then drove to a hotel, and went to her room as though nothing unusual had occurred. At the time the plea of insanity was offered, and any number of people testified that they believed her insane, and several repeated the delusion she had expressed prior to the time of the killing, which was that the person she had shot had thrown bad odors after her all over the world, and that she could not get rid of them. The case is not yet decided.

The history of this case is but the repetition of many similar cases that have attracted the attention of the public for years. In the *AMERICAN JOURNAL OF INSANITY* for July, 1875, Dr. Gray published a paper, giving the history of fifty-eight insane persons who had committed homicide. Of this number thirty-three were classified under forms of insanity not liable to outbursts of maniacal violence, and there were but few of them who committed the act while in a maniacal state. The majority were quiet, and so-called harmless. This fact is in itself sufficient to warrant us in retaining until cured, or relieved by death, all insane persons.

Dr. A. E. MACDONALD. Mr. President and Gentlemen. This question of furloughing patients is especially one upon which we can lay down no general rules. Decision in each instance must depend upon the peculiarities of the individual himself, upon the nature of the institution in which he is, and also to some extent upon the locality in which the institution is placed. I think that

has been shown indirectly by one thing in Dr. Baldwin's paper. He spoke of a certain case as showing quite an interesting peculiarity, and went on, if I remember rightly, to explain that the interesting peculiarity was, that he was jealous of his wife. There *are* localities where this would not be considered as a striking peculiarity.

Dr. BALDWIN. I did not mean it in that respect.

Dr. MACDONALD. I thought your State might be different from others. Speaking therefore altogether of my own State, and my own Institution, I find arguments against the paroling of patients, first, in the law of the State, which, although others have interpreted it differently, does not seem to me to justify any superintendent in paroling a patient that has been committed to his asylum. I fail to see how the intent of a commitment to an asylum, explicitly designated, can be held to justify the patient's freedom, and residence away from the asylum, perhaps many miles, and perhaps out of the State altogether. In the Institution itself, I find in the class of patients I receive, an argument against it, inasmuch as they come from the lower classes, where insanity is produced largely by intemperance and want of food, their being thrown out of employment, and so forth. A parole with them would mean their return to the conditions which produced their insanity, and could scarcely be looked upon as a wise measure.

If I appreciate Dr. Baldwin's object in the paper, it was to establish the wisdom of granting leave of absence, but I think the cases reported scarcely justify that conclusion. If I remember rightly there were fifty odd cases and out of that number one committed suicide while away from the asylum, and another shortly after his return. Had all the other cases been improved by the furlough, (which I do not think was shown,) to my thinking the evil result in these two cases would out-weigh the benefit obtained in the others. Dr. Baldwin also quoted from the experience of Dr. Landor which has been given to us in a recent paper in the *JOURNAL OF INSANITY*, but I do not find in Dr. Landor's paper convincing evidence of the wisdom of furloughing. I think most of his cases may be accounted for in the way Dr. Kempster has suggested, namely, that patients, whom most of us would discharge improved, are sent upon trial, and at the end of a month or more, if they do not return to the asylum, it is taken as an evidence that the improvement has progressed to recovery. This would seem to be shown from the fact that several names appear twice upon the list. Being discharged they have shortly afterwards returned to be again

paroled as improved, and again discharged as recovered. The only difference is this, that we are content to put upon our record a certain number of cases as improved, while others do not discharge them until they consider themselves justified by their continued absence in taking them as recovered. We suffer somewhat on our per centage of recoveries and that is the only real difference.

I find, also, in Dr. Landor's list a number of patients paroled after a short stay in the asylum, and in the column of remarks in the entry, "said to be an epileptic." I should consider it very hazardous to release, after a short residence in an asylum, a man who is said to be an epileptic, and, therefore, probably dangerous in many ways, without settling the point decisively. I have had no actual experience in paroling patients, because I was convinced from the record left by my predecessors in the Asylum (who were in the habit of granting paroles,) that it was unwise. I found that the applications for such paroles did not come in the cases of those patients who might at all be supposed to offer any hope of improvement by the parole. They were mostly made in behalf of chronic and incurable patients, and especially, of two classes; the first, young men addicted to masturbation, who, in the week or two of their absence at their homes, found ample opportunity of practicing that vice, and always returned very much deteriorated. The second class comprised a number of married men, of middle age, who were taken out by their wives for a short time for a purpose that need not be expressly stated, and who also returned very much deteriorated. One instance I quoted last year, of a man, who, upon being arrested for the murder of his wife, and being searched in the police station, was found to have a pass from one of my predecessors in his pocket. Such a case would be to me a justification for stopping the practice altogether, even if it should entail some sacrifice or inconvenience upon others.

Dr. SMITH. I have very little to add, Mr. Chairman, but must say I am pleased to see the unanimity of sentiment which seems to pervade the Association on the subject of paroling patients. I think, as other gentlemen have said, that it is a matter that must be determined by the superintendents of our different institutions, each one for himself, according to his locality, surroundings, and the peculiarity of his patients.

In Missouri we have the privilege of discharging chronic and demented cases, regarded incurable to make room for those of recent date. During many years past we have discharged quite a number with this object in view, but not as paroling them. When

necessary to pursue this course, to enable us to admit acute cases, we have always selected the quiet and inoffensive, and never the homicidal or suicidal, or those who would likely be dangerous in their families or the communities from which they came, of course we can not tell what changes may occur in many patients when removed to their homes, in the midst of their families and new associations, as we are sometimes startled at the manifestation of some new delusion, hallucination or illusion, attended with tragical results, among those who had previously been uniformly quiet and harmless. Hence with our best judgment we approximate safety as nearly as practicable.

There are some cases, I doubt not, would improve more rapidly by being paroled, and occasionally, perhaps, recovery would depend upon it. I have had patients whose history and ultimate restoration seemed to be striking illustrations of the correctness of this course. A short time before leaving home, I discharged a female patient, whose intense anxiety to return home, almost from the date of her admission I have never seen surpassed. She improved regularly till reaching a certain point, after which she remained stationary, and during this stationary period, her anxiety, if possible, seemed to be heightened to such an extent, indeed, that whenever I saw her, the touching importunity to return to her home and children, and exercise a mother's watchfulness and care over them, was the beginning, the middle and end of her conversation. After remaining sometime in this condition, without the least perceptible progress, I concluded the experiment of sending her home worthy of a trial, and accordingly fixed a day for her discharge, eight or ten days from that time. Almost from that very moment she seemed transformed from one of the most restless and despondent to one of the most tranquil and cheerful patients in our building, and when the day arrived for leaving the Institution, she appeared very nearly entirely restored.

Soon after reaching home she wrote me a letter indicating unbounded gratitude and entire recovery. If this patient had remained much longer in the institution, she would, most likely, have lost all hope of ever seeing her family, and fallen into a state of despondency (and perhaps dementia, from which the welcome messenger, death, alone would have released her.

I do not wish, Mr. President, to be understood as advocating, whenever a patient has a strong desire to return home, this is sufficient reason for paroling him. Far from it, because this is one of the first symptoms, especially with those having families, as

they emerge from insanity to sanity, and as they improve, this feeling gradually subsides, and they are, then, willing to be governed by the superintendent and remain as long as he may think necessary for permanent restoration. The case given, however, is one of the exceptions to this rule. The experience of the past, Mr. Chairman, has shown that in selecting proper patients for parole the greatest circumspection and the clearest discrimination are essential. In selecting patients likely to be benefited by being paroled, I usually take those who have, for sometime, been stationary, never evinced any homicidal or suicidal propensity, or any great aversion to their nearest kindred and friends, but a strong desire to be with them and engage in such business pursuits as they have been accustomed to and understand.

Mr. Chairman, this is certainly an important subject, and, perhaps heretofore, we have not sufficiently matured it, and may have retained patients in an institution, that became incurable, that might have improved and recovered, if paroled.

Mr. Chairman, I trust the interesting and suggestive paper of Dr. Baldwin will induce closer observation of our patient, and thus prove profitable to us, and in a large degree to our afflicted households.

Dr. CARRIEL. Not having had the pleasure of hearing Dr. Baldwin's paper, I do not know whether he takes the ground that he would parole the curable cases, or such cases as offer hope of being cured in a hospital, or whether he takes the chronic and probably incurable, and sends these back to their friends with the hope and expectation of improving their mental condition. As a medical question we should say that the facilities, surroundings and treatment offered in a hospital are such as to give the insane, the very best chance of recovery, if curable. We have always felt there was more danger in discharging patients too soon than in keeping them too long. We all of us frequently see cases like that mentioned by Dr. Stearns, but this period of restlessness and homesickness is frequently a stage in the recovery. I find, as a rule, the patients who are the nearest well are the best contented. We have not been in the habit of paroling the incurable with the hope or expectation that their mental condition would be improved by it.

We are in the habit of allowing patients to leave the Hospital on a visit, to be prolonged indefinitely if the patient does well, but most of these cases come back, not being able to live at home. It is true there is a certain proportion of cases who are benefited by a

change from the Hospital to their homes, but I have seen many more made worse by removal.

The longer I have experience with the insane the more distrustful and anxious I feel about the liberties of this class. We all know there is a very large proportion of the chronic insane who have delusions and hallucinations, many of them are quiet, except perhaps, an occasional outbreak, or disposition to violence toward some fellow patient from some imagined or fancied wrong or insult.

There is a certain proportion of cases, such as Dr. Macdonald mentioned, who are troubled with feelings of jealousy at home. This class, while in the hospital, where their feelings are not disturbed, get along very well, but when allowed to go home these feelings come up afresh, and they are more or less liable to do violence to those about them. I do not see any advantage to be derived to the insane from a system of furloughing. If the insane are curable the hospital offers the best chance of cure—if incurable these sufferers are more considerably cared for in a hospital or asylum; are made more comfortable in all their bodily wants and the community is the safer.

Dr. WORTHINGTON. I would like to say a word or two for the purpose of showing the principles which guide me, when application is made by friends of patients for their removal on trial, or as it has been called, furloughing them. The welfare of the patient is first to be considered, but the interest of the institution must also be regarded. I have not seen many cases where I thought the patient was likely to be benefited by being removed in this way, and I generally discourage such experiments. I have seen a few instances where patients seemed to linger for a considerable time on the border of convalescence, or without making much progress, and after being taken home have done well, and eventually recovered, but never considered these cases as justifying such trials indiscriminately. A point which I have also been compelled to look at, is that the institution is still responsible for the event in these cases, because being obliged to record the condition at the time of discharge if the patient dies, or commits suicide during such absence, there is one more death or suicide to be placed on record, the last of which has actually happened. I therefore hesitate, and in some cases have said to the friends of the patient, if you persist in removing him you must request his discharge, as I am unwilling to take the risk.

In regard to the injury a patient may do to others during such absence, I never supposed that that was a point for me to consider,

as it is not the object of the Institution with which I am connected, to guard the community against the dangerous acts of the insane. It was not established with that object, and it has always been a rule, if a patient has committed a homicide, or any criminal violence, to refuse him admission into the Asylum.

Dr. RICHARDSON. I have very little to say on the subject except that for many years it has been the custom in our Institution to furlough patients, and it has always been at the request of friends. I have never had a single instance to record that such furloughing turned out badly. In this city the cases are all selected. We would not, if we knew it, furlough a homicidal or suicidal case. In our Institution a few persons, you may be astonished to know, pay board, and the law gives them a perfect right, or rather, it gives their friends a perfect right to take them out when they wish to do so. Four-fifths of the patients discharged from our Institution, are discharged in that way. They are taken out on furlough two months or a shorter time. If any circumstance occurs, the friends are at liberty to bring them right back the same day. The furlough is repeated from month to month, until sometimes eight months elapse when the patients are discharged. If we hear from the friends that they have been cured, we discharge them as cured; if we do not hear from them at all, and that is the case in many instances, we discharge them as unimproved or improved according to our judgment, or the condition of the patient at the time they went away. I am very much in the position of Dr. Macdonald; my patients come from the same class, the lower walks of life, and many of them are insane from the practice of intemperance, and of course when I know the cause of insanity to be intemperance, I do not, if I can avoid it, give a furlough. Sometimes we are coerced to it. It sometimes happens the court discharges patients that we have declined to discharge. I always decline to discharge a patient who has suicidal or homicidal tendencies. I have never yet discharged them, but the courts have several times taken them out of my hands.

Dr. WALKER. I think that all of us have had patients who have been discharged at the request of friends, or upon the suggestion of superintendents that they were probably as well as they ever would be, and that there was no particular necessity of retaining them in the Hospital, if their friends wanted them at home, and could provide for them at home. I think there has been case after case in which we have been told afterwards that the patient was fully restored, and returned to his business. Now we all

know that a patient may go into the carpenter shop, and work in the Hospital without being well. He may do various things, he may even keep accounts in the Hospital, and yet be far from being a well man, or one that is safe to entrust to live in the community, but just such patients go out, and do work and the patient's physicians have certified to you, without hesitation, that they are just as well as ever and even better. Now if we are going to send such cases out, and then take such cases and place them on record on our books as cured, it seems to me we are recording words of condemnation, and I am satisfied from my own experience that the great majority of these cases are improperly recorded. I have in my own mind now a very marked case. I allude to a patient who was a builder, he had become very quiet in the Hospital, had worked for six months as satisfactorily as any patient in the establishment, and had accomplished exceedingly good work, and he was permitted to go home at the request of all his friends. In six weeks an application came to me for his discharge, because he was well. I ignored it for a whole year, and then upon a certificate of two physicians, and the application of his wife, I allowed his discharge. In two weeks after his discharge he assaulted his wife and children, and was sent to the State Hospital. I fancy that a good many of these so-called cured cases are just like that. For a short time, under the fear of being returned to the Hospital, the patient manages to do pretty well, but I think one homicide or suicide at home under such circumstances as this would outweigh in my own estimation the discharge of a dozen patients who did well at home. I do not think that this subject, so far as it regards that class of patients has yet been thoroughly considered by us all. I think it takes more than two or three years to decide any such important question as that, but in so far as it refers merely to chronic, apparently harmless and incurable patients, I think there is no difference at all in the opinion of the Association, there certainly is none in practice for our reports are full of these things.

Dr. BOUGHTON. I would simply make one suggestion in regard to this question which has not been touched upon, and that is the great influence toward cure that is found in the separation of the patient from former associations, which have been connected with the development of existing delusions. I have been impressed with the change in a patient's conduct which so frequently occurs from the moment he enters the Hospital. Reported as violent and homicidal when at home, and in his own neighborhood, now he is orderly and peaceable. The friends, perhaps, on their

first visit, recognize a sudden and radical change in conduct, and insist upon taking the patient back to his home. They do so, and almost immediately on his return to former associations and scenes the old delusions arise and assume control of the patient. The patient is again committed to the Hospital with much the same result as before. This experience is one that we have frequently had. It can in no way be attributed to medication, but to the powerful influence in diverting the mind from present channels of activity by change of surroundings, enforcing regularity of habits and submission to proper authority, at the same time that they are removed from aggravating and unfavorable surroundings. Seldom have we given paroles to a recent and curable case that we have not regretted it. The recall of slumbering or forgotten delusions, by returning to scenes, surroundings and associations connected with the rise and developments of those delusions is like the arousing of the long forgotten feelings and fancies, and emotions of childhood, that occurs, when one in later life revisits the home of his childhood. Every familiar thought, insignificant object, a stone or a tree, or an old building, calls up forgotten emotions. It seems to me, Mr. President, that recognizing, as we do, the advantages that an insane patient derives from hospital discipline in the way of enforced regularity of habits, sanitary regulations, subjection to judicious authority, and separation from former unfavorable surroundings, that to grant a parole is to surrender the most potent means yet devised for the restoration of the insane.

Dr. GUNDRY. The law of Ohio has always been, so long as I can remember it, that the friends of the patients have a right to remove them at their own request at any time upon giving a bond to the Superintendent, if he deems it necessary for the safe keeping and care, except in a certain class of patients specified by law. When they are removed under a bond, they go out on their own responsibility and not on the responsibility of the Superintendent, unless he chooses to recommend it. Now there is another class of cases that I confess it will always do to send home on a visit. It is a very grave thing for a man to take upon himself to say that one man has changed from an unsound mind to a sound mind. To me that is the greatest of all questions, and I do not think that anybody ever knew whether any other man has resumed his soundness of mind, until he has been put in the same circumstances as he was when he displayed the unsoundness; therefore when I think a man has recovered and ought to go home, I always say to him and to his friends, "I am not satisfied that you are perfectly

well, but I hope you are and I hope you will continue so, but it will be better if you remain on our books, and come back within a month, if necessary." I have never marked off a person as recovered, unless it was an exceptional case, where there were legal requirements in the matter, until my own opinion has been confirmed in my own mind by the man's subsequent action at home. I wish to say one other word, and that is that we can have no sort of analogy with the customs abroad. I wish we would take that off our minds. In England the superintendent thinks a poor man is pretty well, he is not quite sure, and he wishes to try the thing, but it is attended with a great deal of hubbub there, and so this furlough system is resorted to, which helps him along and relieves him from care for a few weeks at home, they in this way try the experiment, they get over the difficulty just in that way.

Dr. BLACK. I do not know that I have any remarks of importance to submit. I have listened with a great deal of interest and pleasure to this discussion as a beginner in this specialty, and am very glad to find there is no great difference of opinion among the members of the Association on this subject; and that such was the case in the discussion that occurred at the last annual meeting, and I am very much inclined to think that if each member of this Association of Superintendents were to give his experience that we should find there was great similarity in their action in the disposition which they have made of their patients; and I think, after all, it depends to a great extent upon the circumstances under which we find ourselves situated, as to the extent to which we would go in giving them leave of absence. I have only been in charge of an asylum for about six months. During that time I have furloughed six patients and have no cause to regret it, of course the time is too short to say whether the action has been judicious, but so far I regard it as a good thing. In the cases selected I have had the concurrent opinion of the Board of Directors of the Asylum. As we are situated in Virginia it is really necessary that we should move our population as rapidly as possible. It was rightly explained last night by Dr. Baldwin that when we have a patient in the asylum, and can reasonably believe that he would do well at home, we feel it our duty to send him, in order that some other patient may take his place, perhaps a recent case which would become a chronic one, if kept in jail or kept at home. We receive our patients from all classes of society, from the best and from the worst, and mostly from the rural districts. Our cities are not large, and most of our people coming from the country are, when

sent home, not subjected to disturbing causes, as when returned to large and crowded cities. My rule has been, in the few cases I have had, before giving the leave of absence to inquire particularly into what the circumstances of the person would be at home, the surroundings, how they would be managed, and all that sort of thing ; and I think really that when this matter is sifted down, we come to the point that each superintendent must and does act upon his own judgment, or discretion in the matter, and that he can not do anything more than that. I think, so far as I can judge, it is perfectly right under certain circumstances to furlough some patients while many others should not be furloughed.

Marked cases of nostalgia should be furloughed, if practicable. Patients kept in an asylum twelve months longer in that condition would probably die, when, to send them home, they would be greatly benefited. I had a case of that kind whom I sent home. He returned to his work, seems to be doing well, and is now laboring for the support of his family. While these cases may be regarded as cases of chronic insanity, I do not think we are justified in keeping them in the asylums and running the risk of their death there, when there is a prospect of recovery, or at least of improvement, when sent out on furlough. From the light which I have had from this discussion I shall in the future go on and furlough such patients as these, and others likely to be benefited, and see what I can make out of it. I think in Virginia we can do the greatest amount of good by pursuing such a system of furloughs or leave of absence, whichever you may chose to call them. We have in our asylum some patients who have been there for a long time, some of them thirty or thirty-five years. Many of these chronic cases have but few or no friends at home and one of our difficulties is to find, in numerous instances that could be furloughed, those willing, or, if willing, able to take charge of them. This seems to be frequently the case after they have been in the asylum for eight or ten years. As this is a matter of considerable interest I am glad to have heard the remarks that have been made.

Dr. CHIPLEY. Mr. President, I have no disposition to enter into an abstract argument in reference to a question where I have had pretty large experience, although it has been forced upon me. I have always had a great many persons under my care even when in charge of a State Institution, persons who came to the Institution and paid their board. They are admitted by a committee composed of two members of the Board of Managers and the Superintendent. The law requires an inquest in all other cases,

and a jury to be holden. Of course the friends of these had a right to remove them at any time and take them out of the Institution. For several years past, I have had none under my care, except by the consent of friends, or at the request of friends, and they always have been of course under the control of their friends, and could be removed at any time. I have very decided opinions on the subject. I have no recollection, and can call to mind no instance in which a case, as we term a curable case, which was in the process of convalescence, which had been taken from the hospital that it has not been an injury to the patient. I can call to mind a number of cases under my care which would have fully recovered if they had remained in the hospital, which became absolutely incurable by being taken into society before fully recovered. The result of my observations are very well expressed by the gentleman over the way; almost invariably there were two phases during convalescence, and the first where it has become pretty decided when there was a great anxiety upon the part of the patient to leave the Institution, and the stage continuing for some time up to convalescence, became more decided and almost invariably they would become reconciled, and their common expression would be, "Doctor, when I leave the Institution I wish to leave in a condition that I shall be certain not to return, I am willing to remain until in your judgment I am prepared to enter society again," and these two phases have presented themselves to me in almost all cases of recovery. Now I consider I have about as much responsibility in the care of patients, while under my observation, with all the safe guards that we can throw around them in the Institution, as long as they remain in the Institution, and under my immediate observation as I desire to assume. I will not consent to send an individual who is insane into society, and take the responsibility of his conduct. I consider that if he is furloughed by the superintendent, and stands upon the register as an inmate of the Institution, that the superintendent is still responsible for his conduct, and I am unwilling to be responsible for the patient who has gone beyond my control and beyond my observation.

There is another mistake we make in cases of this kind in furloughing. We seem to admit that parties will do better beyond our observation, and in the hands of friends, although there are some remains of disease, that the friends will manage them better than we can manage them under close observation. I would be unwilling to take credit to myself, that belongs to anybody else.

I would be unwilling to falsify my register. I would be unwilling to discharge a patient, or furlough a patient, that I was satisfied had not recovered, and let him remain at home two or three months, and there recover, and then enter upon my register that the patient had recovered. If I pursued the practice at all, I might enter upon the register that he was improved when he left the Institution; but if he recovers in the hands of friends, I think the friends are entitled to the credit, and that it ought not to appear upon the register, or that the party had recovered, when, in fact, he left the Institution only improved, and still not recovered. I think that is rather objectionable, as in the comparison of statistics, the registers would not be upon an equal footing. I have had no voluntary experience in this matter. I have made no experiments of that sort. When patients have been removed from my care in that condition, so far as I have been able to ascertain, or keep the parties in view, it was no benefit in any case, but serious injury in most of them, I have had the opportunity to observe.

Dr. BALDWIN. I am sorry I could not be here in time to hear the opening of the discussion, but I was unavoidably detained. I may say that no patient has been furloughed from the Institution that we have regarded as having any dangerous propensities whatever. We have exercised the same care in granting these privileges as we have in discharging other patients. I do not wish the Association to think that I put any man upon the community who evinces any such propensities. Sometimes in bringing cases before the Board to pronounce upon and discharge them as cured, I have felt a fearful amount of responsibility. For not unfrequently when men have been under my observation for months without my detecting any evidence whatever of insanity, there has been still something in their expression that has made me suspicious, and given me great anxiety for fear of mistaking as to the result. When I have a case of that sort, instead of giving him a final discharge, I recommend sending him home on trial—his friends entering bond to return him to the Asylum, if necessary, at the end of the stipulated term of trial. If, at the end of that time, his friends desire his discharge, it is granted upon the certificate of the family physician. Among the cases allowed to be absent, upon these conditions from the Asylum, there has been one suicide. Such a result had never been suspected either by his friends or by myself, as he had never, at any time, manifested any propensity to injure himself. In chronic cases in which we do not hope for improvement or cure, but in which the friends desire to remove the

patient from the Asylum, we allow him to remain at home under bond and under the observation of his friends for a specified time, and if at the end of that time, they still desire to have him at home, he is discharged under such bond, as in such cases the law requires. There are three ways in which we can give a patient a legal discharge; 1st, as cured, when we feel authorized to pronounce the word *cured*; 2d, as harmless and incurable; 3d, under bond, with penalty attached, to be forfeited by his friends who take from the Asylum the responsibility for his good conduct and safe keeping. But *in no case* do we permit a man to leave the Asylum whom we regard as dangerous to himself or others. But accidents sometimes happen, for dangerous propensities are sometimes developed where we had not expected them. A patient, at one time suicidal, but whom we thought to have recovered from his propensity sufficiently to be trusted, was taken away by his brother on a furlough of ninety days. During his absence the propensity returned; he was promptly returned to the Asylum, and notwithstanding a watchful care on our part he committed suicide sometime afterwards. I certainly think no man has felt the responsibility more than I have. We have many suicidal cases that have given me great anxiety, some being most persistent in their efforts to destroy themselves, while in others the propensity is developed suddenly and unexpectedly. I must say that the treatment of this class of the insane has given me more anxiety than any responsibility that I have been called to bear during my life.

The PRESIDENT. I simply wish to say that the members of this Association should exercise great caution in furloughing patients. I deem it my first duty to take care of the patients and then to the community.

On motion, the paper of Dr. Baldwin was laid on the table.

The SECRETARY. I wish to call attention to the resolution, passed the other day, that the proceedings of this meeting of the Association should be published in the July number of the JOURNAL OF INSANITY; and therefore request the members to send back to me at once their revised remarks. I will prepare the proceedings for that number of the JOURNAL if it is in my power to do it, and, if they are not in that number, the members will understand that it was not in the power of man to write them out.

The minutes of the meeting were then read and adopted.

Dr. KIRKBRIDE. Before adjournment, I hope I shall be pardoned for saying to you what a very great gratification it has been to me to have the Association again in Philadelphia, now for the fifth time, and I beg leave to add, although it is rather early to decide where the Association will meet, after being at St. Louis, still if our friends from Ohio will allow us to pass over Cincinnati, I should be very glad if it should meet again in Philadelphia, where the members, as a body, or singly, will always be most cordially welcomed.

Dr. WORTHINGTON. Allow me, Mr. President, to express my cordial concurrence in the remarks which Dr. Kirkbride has made in reference to the gratification which the present meeting of the Association in our city has afforded him, and also to join in the hope that Philadelphia may again, in the near future, be selected as the place of meeting.

On motion, the Association adjourned to meet in St. Louis on the last Tuesday of May, 1877.

JOHN CURWEN, *Secretary.*

SPEECH OF DR. BUCKNILL, AT THE ANNUAL MEET-
ING OF THE MEDICO-PSYCHOLOGICAL
ASSOCIATION, JULY 28, 1876.

Dr. BUCKNILL. Mr. President, I am sure we are very much obliged to you for your able and practical address. It deals with subjects which at the present time press for a solution, and it will, I am sure, aid us very much in our judgment as to how those important matters should be dealt with. I have rarely had the pleasure of hearing a more able and practical address, and I am sure that in the name of my colleagues and associates, I may say that we are all exceedingly pleased and obliged to you for it [hear, hear.] I am personally most gratified to see you in that chair; I do not know that any one has a greater right to be gratified than I have after the intimate knowledge I have had of you for thirty years as a friend and fellow officer, and during that long period I have become more and more deeply impressed with your moral worth and intellectual force. I hope the production of this able paper will lead you to change in some respects that which has been the habit of your life, and that we may hope for some further literary efforts from your pen which while we all knew you were so capable of using, from your having devoted your life to the practical cares of the treatment of the insane, we have not had the benefit of until the present time. There is one point in your address in which I take more interest than any other, and I am happy to be allowed to refer to it as an opportunity for asking this Association to follow your advice in their hearts and minds and to reserve their judgments as to the accusations which have been made in this country against our psychological brethren in the United States. Some of those accusations have been quite recent, and of those I will speak first. They are contained in the *Lancet* of the eighth of this month, and they are of a peculiar nature, to which I wish to draw your attention. They are mere copies from American newspapers of accusations which have not been proved in evidence; one especially is copied from the *World* newspaper of New York, and professes to be the charges made against Dr. Nichols, of the Washington Asylum, before a Committee of Congress. Now I should like to read to you part of a letter which I have from a gentleman, whose name is never mentioned among alienists without respect, on that very subject. It is from Dr. Thomas

Kirkbride, the venerable and venerated head of the Pennsylvania Hospital for the Insane, Philadelphia. He says: "Dr. Nichols is just now going through a most infamous persecution by what is called an 'investigating committee,' started by the democratic majority in Congress, with the determination to blacken, if possible, the character of everybody connected with the government. One would have thought that such a man and such an Institution would have escaped, but where the testimony of discharged employes, uncured patients, and personal enemies is eagerly sought after, in a secret investigation, there is little probability of even an approach to justice being done." Now I dwell upon the word "secret" there, not because I think such an investigation might not very properly be secret, but because it will show to you that the charges which the *Lancet* has published have been obtained either on information which has been stolen or which has been betrayed. And I ask you to put it to your own minds, whether, if such charges made against any of the Superintendents of the English Asylums were liable to be published in the medical press as if they had been proved, whether any Superintendent could ever feel that his character was safe? Dr. Nichols is the President, and has been for many years, of the American Association of Superintendents of Asylums, and he is a man who until these accusations were made, was held in high and good repute. I am far from wishing to defend Dr. Nichols from any charges of wrong doing which can be proved against him, but I do think that this is a pointed example of the necessity of your wise counsel, that we should hold our judgment suspended. I remember a short time ago a pamphlet being published in this country, purporting to have come from a Society of Supposed Lunatics, in which charges were made against many of us. They were not taken up, because we all of us had sense enough to see that a clique of crazy women and their imbecile supporters were not worth powder and shot, [laughter.] But if the *Lancet* had transferred those charges to its pages, I think that Journal would very quickly have had to pay heavy damages for libel. Dr. Nichols, I suppose, stands as a foreigner in a different position to that we should have occupied, and as he can not defend himself, such attacks are the more inexcusable. I hope I shall not be wasting the time of the Association if I refer to the commencement of this discussion, and very briefly tell you what was said by the *Lancet* in its leading article on November 13th last. It is a very consistent tissue of indiscriminate accusations against the "Mad Doctors,"

as it calls them, of America. There is no mistake it is all wool, there is no cotton in it; it is an accusation against them from the first to the last line—against these American “Mad Doctors.” It commences by dividing the treatment of insanity into three stages the first is the barbaric, the second is the humane, the third the remedial, and it declares that the “Mad Doctors” of the United States have not made much progress out of the barbaric into the humane stage, but have remained for the most part in “that stage in which the lunatic is simply regarded as a wild and dangerous animal, from which society needed protection, and which might be kept in chains, tamed or destroyed, as convenience should dictate.” That is the charge against the “alienists” of America. It then proceeds to make special accusations against them, namely, that they “resort to contrivances of compulsion, they adhere to the old terrorism tempered by petty tyranny; that they use at least the hideous torture of the shower bath as a punishment in their asylums, although it has been eliminated from the discipline of their gaols, and worse than all, if the reports that reach us may be trusted, their medical superintendents leave the care of the patients practically to mere attendants while devoting their own energies principally to the beautifying of their colossal establishments.” These are definite charges, and it gives the reason why they should do all these things on the broad principle that “there can be no question, that the custom of slave-holding and the brutalizing *regime* from which it is inseparable, have blinded and blunted the sensibilities of the people.” I do think the *Lancet* might have asked some little boy in the street about the brutalizing *regime* and the probability is that it would have been told that the *regime* of slave-holding only extended to a portion of the States, and that it was detested in the remainder. But with great consistency the *Lancet* applies that principle to the whole of the people, as it applies its other accusations to the whole of the “Mad Doctors.” Now on reading this I felt that I should be ashamed to see the names of such men as Edward Jarvis, Thomas Kirkbride, John P. Gray, Isaac Ray, Pliny Earle and many others even in print, if it was left unanswered. I therefore did answer it in a letter in which I claimed justice for those who were innocent, admitting at the same time that there were asylums in the States, and that I had seen them, which were disgraceful. In this matter I was not consistent, at least according to the opinions of the *Lancet*, whose consistency seemed like that of King David who said in his haste, “all men are liars” [laughter, and “hear, hear,”] as the consist-

ency of the *Lancet* consisted in saying that all the people, and therefore all the "Mad Doctors" of America, were under brutalizing influences. However, the *Lancet* invited me to make known what I had seen in America, saying that, "no information could be more important and trustworthy." I accepted this invitation, and wrote my Notes. Now, I was under the apprehension that, in writing those Notes, I had expressed my sense of the evils which I saw very unreservedly, and that I might, perhaps, have offended those whom I most earnestly wished to convert, and I think that those of my associates who have done me the honor of reading those Notes, will agree with me that I did run a very considerable risk of doing so. But I attempted in these Notes to distinguish the good from the evil, to discriminate between those who were justly accused, and those who were not. Now, the *Lancet*, and I hope I am not going into a matter which may be thought personal, for the manner in which I have been treated did not greatly surprise me, knowing, as I did, that those who play at bowls must put up with rubbers, and those who contradict editors must take the consequences; but I do think it a matter of extreme importance to our specialty to know how we may expect to be dealt with by a Journal which takes upon itself the censorship of the treatment of the insane in this country and abroad. I was proceeding to say that the *Lancet*, on the eighth of this very hot month, having "nursed its wrath to keep it warm" ever since last November, "sums up" on the subject. It accuses me of having confounded the good with evil.

That is exactly what the *Lancet* itself had done in the first instance, it confounded the good with the evil; it made indiscriminate and sweeping charges and accusations, which it has not substantiated; it says I have written in defense of restraint, and leaves it to be inferred that I have tried to prop up the tottering system of restraint. I can only appeal to you to know whether that is a fair reference to be drawn from what I have written. I don't myself think it is, but the very opposite. Then it censures me because, with reference to the Washington Asylum, where I saw restraint in use, I used these words:—"It must have been imposed because it was thought the best mode of treatment." Now, gentlemen, did or could any of you think that, by my saying that, I meant to express my opinion that it was the best mode of treatment? Why, if I were to say that the *Lancet* perverts everything that an opponent writes, and that the *Lancet* thinks this a fair and candid way of conducting a discussion, none of you would

believe that I thought myself it was an honest way of conducting a discussion. Yet that is an exact parallel. I must beg, however, to tell you why I did not ask for any explanation why this restraint was used. I had been expressly told that any discussion on the subject would be unwelcome and disagreeable, and I think that after the warning, it would have been bad manners and discourtesy on my part to have demanded such an explanation. The *Lancet* also censures me severely because I did not ask to be permitted to inspect the register of injuries and accidents. Now, may I ask if any one of you, in going unofficially round an asylum, have ever asked for the register of injuries and accidents? I should like to know if anybody has done so? If he has I should like to hear him say so. I pause for reply. I suppose, then, no one has done so. Perhaps the *Lancet* Commissioner might have done so, for his knowledge of lunacy appears to consist of the crusts and crumbs of information which he has picked up in his raid upon us by unreserved questioning. But I venture to think that, as a stranger in a far country, it was right not to return impertinence for courtesy; and that to do so is not the right way to obtain or impart information under such circumstances. The indiscriminate accusations of the *Lancet* have produced in America nothing but angry opposition, but I am happy to know that the description which I have given in a more discriminating and tempered vein, has done some good [hear, hear.] I have recently had a letter from Dr. Edward Jarvis, saying that my descriptions of American Asylums are, he believes, quite true. That is something from such an authority. Then I have had letters from Dr. Landor, the Superintendent of the Ontario Asylum, who has made a tour of American Asylums since I left, and he tells me that my Notes have induced some of the Superintendents to make a trial of non-restraint. And farther, I have had other letters from America, assuring me that my Notes have awakened a desire among Superintendents to visit this country and examine our system, after the bustle of this Centenary year has passed. If books and pamphlets could have converted the Americans, they would have been abreast of us long ago, but in a matter of this kind, seeing is believing; and I have faith that when the American Superintendents do come to this country, and carefully and conscientiously examine for themselves into our system of treatment, that they will generally adopt it. And when they do come, gentlemen, allow me to say that you will find them most friendly, kindly and agreeable men, whom you will be happy to welcome into professional and domestic circles. In their own

country they are most hospitable. In this country, I am sure they will be welcomed as they deserve to be. I should wish that this great Association should, under the circumstances, say a kindly word to them, and while I entirely concur in the wisdom of that reserve which our President has recommended, I shall ask of you to adopt a resolution which I have framed, and which I will put before you for discussion. I am not sure it is such as you will approve, therefore I submit it for alteration if you think fit. It is :—"That this Association, while reserving its opinion on the general question of the treatment of the insane in America, and in matters which are under inquiry, desires to express its sympathy with the medical men engaged in the treatment of the insane in the United States, who have been made the subjects of unfounded accusations or imputations either in the United States or in this country" [hear, hear.] I have now only to thank you for your indulgent attention [applause.]

The resolution having been seconded by Dr. Clouston and supported by Dr. James Stewart (Bristol) and others, at the suggestion of Dr. Wood, it was altered to the following, and carried unanimously :—"That this Association, while reserving its opinion on the general question of the treatment of the insane in America, and in matters which are under inquiry, desires to express its esteem for the medical men engaged in the treatment of the insane in the United States and its sympathy with those who have been made the subjects of unfounded accusations and imputations either in the United States or in this country."

We have received the following letter giving notice of further action taken by the Association, at the same meeting.

BETHLEHELM ROYAL HOSPITAL, }
LONDON, S. E., 14th August, 1876. }

DEAR SIR:—I have the pleasure to inform you, that at the Annual Meeting held at the Royal College of Physicians, London, on July 28, 1876, you were unanimously elected an Honorary Member of the Medico-Psychological Association. I remain Dear Sir,

Yours faithfully,

W. RHYS WILLIAMS, M. D.,

Hon. Secretary.

Dr. J. P. GRAY.

SUMMARY.

We regret to learn that Dr. C. E. Woodbury, assistant physician at the McLean Asylum for the Insane at Somerville, while in the discharge of his duties at the Hospital, on the 25th inst., was assaulted by an insane patient with a croquet mallet, receiving injuries of the head which, it is feared, will prove fatal. We understand that Dr. Woodbury was first knocked down, and then, when on the ground, violently beaten on the head, and his skull was fractured. This is another sad instance of the dangers to which physicians who devote themselves to the care of the insane are constantly exposed, and we hope that the fatal result may in this case be averted, though from the nature of the injuries this seems hardly possible.—*Boston Medical and Surgical Journal*.

We have since learned that the injury is not of so serious a character as at first indicated, the fracture of the skull being confined to the outer table.—[Eds.]

Dr. Woodbury had been recently promoted to the position of first assistant physician, vice Dr. James H. Whittimore, who had been appointed Superintendent of the Massachusetts General Hospital.

—Dr. T. F. Kenrick has been appointed fourth assistant physician in the New York State Lunatic Asylum, at Utica, vice Dr. E. E. Smith, resigned.

—Owing to the length of the Proceedings of the Association we are unable to present the usual variety of subjects in the present number of the JOURNAL.

AMERICAN JOURNAL OF INSANITY. FOR JANUARY, 1877.

PATHOLOGICAL RESEARCHES.*

BY JOHN P. GRAY, M. D., LL. D.,

Medical Superintendent New York State Lunatic Asylum. Professor of
Psychological Medicine at Bellevue Hospital Medical College.

The elemental constitution of the various organs of the body, the processes of development and growth, and the constant changes which occur in ordinary waste and repair, and the laws of their evolution and of their general and special functions, in health, belong to histology and physiology. All changed and disordered physiological and anatomical conditions belong to pathology. It is impossible to define the pathology of insanity in distinct terms, as it is still a subject of investigation. The boundary of our knowledge is not only limited, in this field, but, as any one will find who will take occasion to read the subject up, the nature of the morbid changes are still not satisfactorily solved. Indeed those changes are just what we are investigating, in the hope of substituting positive knowledge, by examination of the actual lesions, for the various speculative theories.

In a paper on pathology, read before the Association two years ago, I endeavored to present the general,

*Read before the Association of Medical Superintendents of American Institutions for the Insane, held at Auburn, N. Y., May, 1875.

morbid processes observed in insanity. I wish now to bring before you the nature of the changes which occur, and the anatomical character of the products of the pathological changes, embracing all stages and conditions of the disease, from acute mania to the most chronic forms of insanity; also general paresis and syphilization of the brain. The components of structure, are, you are all aware: 1. Blood vessels. 2. Lymph spaces and canals. 3. New cells. 4. New fibres. 5. Neuroglia, or connective tissue.

The pathological laws to which the brain is subject, are the same that obtain in all other parts of the organism; that is, the processes are the same everywhere, but the products are modified by the cell structure of the different parts involved; and the cell being, indeed, the ultimate element, as far as we know, upon which life depends, its alterations are of the highest possible moment.

Infiltration and involution are the terms used to express certain changed conditions in the tissues. These two terms characterize the morbid phenomena and morbid processes of which I will speak. Infiltration is in one sense a passive process. That is, its products are normal, but in excess, and the deposits are out of place. The deposits are fatty infiltration, calcification, pigmentation and amyloid bodies. These, as you will understand, are more or less normal products. It is proper to assume that there must be some loss of vital property, which renders the tissue or organ powerless to resist the invasion of this process. These deposits, we know, occur in the gradual failure of age. Infiltration is therefore more in the nature of a chemical process. Involution is, on the other hand, a physiological process, but a deviation from the normal mode, and the type of structure is changed. In involution, therefore, the

degeneration is in the nature of metamorphosis of the tissue, and is not a deposit. The change always commences in involution, in the nucleus of the cell, the germinal point itself, and a cell of a different character, of an entirely different type is developed. The exception to this is colloid involution which does not commence in the nucleus. In infiltration the deposit is never in the nucleus, but always commences in scattered points in the protoplasm of the cell. In involution the cell is inevitably lost by its transformation into another and different structure. In infiltration the cell is only embarrassed and distorted by deposition of foreign matter, which may be re-absorbed; the nucleus or germinal point of the cell not being affected. In infiltration, the new deposit has no inherent life—it is powerless to increase itself—it is only increased by aggregation. In involution, the new formation is itself a living cell, and capable of reproduction, or what is called proliferation. This proliferation or increase, is often very rapid. Now, when we speak of fatty degeneration, for instance, of the ganglion cells of the brain or cord, or of the cells of the muscular fibres of the blood vessels, there is great difference between the form of fatty infiltration and fatty involution.

Now we shall examine these more particularly. In considering the conditions of degeneration and decomposition of the tissues of the human body, we must always keep in mind certain organic laws, which are concerned in the normal development and formation. Each organ is built up of cells of different characters, forms and functions. These cells, from their genetic unity, their mutual dependence and reciprocal action, constitute what we call organic life. They act upon and with each other, as parts of a totality, and though so different, are really members of one family, in their

mode of origin, their life, and their processes of decay. As soon as this harmony of action is disturbed or lost, that is, as soon as this peculiar mutual dependence and reciprocation are interfered with or cease, health is disturbed or death occurs. These results—sickness and death—we then suppose to be the consequence of those altered relations and anatomical changes.

I shall first endeavor to bring before your minds the anatomical changes in the structure of the tissues. Bear in mind that life consists of continual change of constituents, in its development, growth and maintenance, and also in its decay; that the life of the body, as a whole, depends on that of the several organs, and that the physiological activity of these rests upon the life of the cells of which they consist. No change of constituents occurs without being followed by change of forms; and no change of forms occurs without some alterations being manifested in the life. So, it will be observed, that the normal changes manifest themselves in the functions of the organs. So, also, changes are manifested in altered functions under anatomical changes in the constituted tissues which enter into their composition. The tissue changes produced by age, and which would seem to be the natural, or, so to speak, normal mode of decay, are therefore, not only interesting, but of the highest importance to the student of histology. Indeed, it will be observed that those produced by disease are quite similar in character. As those of age gradually bring about the normal death of the whole organism, so we find conditions similar, which, so to speak, are premature senescence, and which lead to the gradual death of organs and tissues by successive involvement of parts and progressive changes. The gradual progress of insanity, after certain morbid processes are set up, would go to sustain the view.

In considering anatomical changes of tissues, we must distinguish between those conditions in which death of the tissue, has preceded the changes, and those in which the changes have occurred prior to the death of the tissue. The former are known as necrosis, mortification and gangrene, and are marked by a more or less complete dissolution of the organic structure. Here then is destruction of form and composition, and, in certain cases, dessication or drying up, under the action of simple chemical and physical forces.

Notwithstanding all this, the parts affected, mainly owing to an entire interruption of nutrition, may at the same time be unusually rich in blood. Here, however, the condition of the afferent arteries may be the obstacle to the supply of blood, and we have anæmia in consequence of the interruption of the circulation in the capillary system. These tissues being thus cut off from the nutritive fluid, and practically separated from the life of the whole organism, a chemical action is set up and decomposition of the tissues takes place, which is sustained by the large amount of water, about eighty per cent., which the normal organism contains. Now, this process is marked by the dissolution of the organized albuminates, and the formation of the most varied chemical compounds, which differ according to the seat of the destruction, and the products which are deposited, as crystallized or amorphous matter, liquids or gaseous bodies, which diffuse themselves into the surrounding tissues. This is the process of complete mortification. The presence of foreign living organisms are a cause of partial and local mortification. Not only the so-called vibriones, the bacteria, the botrytis, the aspergillus, &c., which are found in gangrenous conditions of the various organs, and even in the blood itself are causes, but also the processes of

life of the trichina and the great variety of the entozoa. Mechanical action, as concussion, crushing, &c., may properly be mentioned as a cause, and not an uncommon one, of necrosis or local death of tissue. Now, in all these instances, as before stated, the death of the tissue, that is partial or entire interruption or intermission of the function in the part, precedes the anatomical changes.

In the following conditions, the changes precede the functional impairment or death. There are cases where there is gradual but final extinction of function, by a gradual but entire transformation of the tissues affected, into other tissues, as in cancer; and other cases when the changes are only transient, or when they are limited, in which we have modification of function, as in inflammation; and again, there are cases when the changes are progressive, but so slight as not to impair the function notably, though continuing through life, such, for instance, as rheumatic deposits. Still, even in such cases as the latter, function is impaired, and the parts will not endure strain.

As we have already stated, the modes of impairment and death of tissues are designated under the terms, infiltration and involution, which I have already sufficiently explained. I have said that the character of the conditions of infiltration is rather that of a passive change. The parts affected preserve in the main, the external form even in advanced stages, and the physiological action rarely ceases entirely. However, in proportion to the degree of changes, the form, in all cases, must be altered and the function disturbed. The processes in infiltration may be defined in quite an exact manner, as they are so largely chemical.

While the nutritive constituents, dissolved in the fluids, which pass continually through the organs and

cells, in the ordinary progress of life, show no traceable influence of their action and presence, as the constituents are taken up and utilized; certain other materials, normal or abnormal constituents, which are retained in the cells and described as a precipitate upon a filter, would be seen at once. They leave the trace; they can not be appropriated. However, this precipitate is to be considered, whether or not as produced by the action of the cells themselves, it is a combination of certain albuminates, contained in the protoplasm of the cells affected, with certain materials of the nutritive fluids. In fact, there is probably an adulteration of the nutritive fluids, a dyscrasia, which manifests itself by producing the same chemical and anatomical changes in various and different parts of the organism, as we see in fatty and other deposits. In some instances, however, the deposits are purely local. However, all organs, tissues and cells, are not equally susceptible to the production and retention of peccant material.

There are now recognized four different kinds or conditions of infiltration: that is, the amyloid, calcification, pigmentation, and the fatty infiltration.

I. The amyloid infiltration is a condition first pointed out by Virchow, and so named from the re-action of its products, which is similar to that which takes place in vegetable starch when treated with iodine, and from the microscopic appearance of its deposits. These amyloid deposits stand, however, in a very limited relation to that well known product of vegetable life. According to chemical analysis the amyloid substance belongs to the large class of the *albuminates*. An albuminate, however, with this prominent characteristic, that it is always near the point of becoming solid, more so even than the fibrinous substance of the blood. On analyzing the amyloid infiltrated tissues, the cells

are found enlarged from one-third to twice their normal size, and homogeneous, colorless and translucent. The nucleus is rarely recognized in the advanced stages. Concentric stratified bodies will be found in place of cells. Sometimes, as in the lining membrane of the ventricles of the brain, these amyloid bodies appear in an enormous amount, scattered through the tissues; they are also abundant in grey atrophy of the brain.

II. The second condition of infiltration is that of calcification, which is the impregnation of the tissues with phosphate or carbonate of lime, in a solid form, and also in combination with albuminates. The lime salts are soluble in liquids which contain carbonic acid, and belong to the normal constituents of the nutritive fluids, and are indispensable substances for the preservation of a large class of the tissues, as the bones, &c. An abnormal disposition of these salts must be generally considered as due to local causes. How far the obstruction of the lymph capillaries, and the lymph spaces, which seem to serve as drains for any excessive amount of nutritive fluids and constituents, may be connected with these abnormal deposits, is still a question with physiologists. However, it is well known that the bodily textures in which calcareous impregnations occur normally, as the osseous tissue, the membranes of joints, &c., are entirely without lymphatic vessels. Morbid, or pathological calcification, therefore, occurs more as a secondary production in consequence of inflammation and pathological nerve formations, as in gout; however, the principal seats of this deposit are the vessels and connective tissue, the cellular and glandular tissues, the muscles and the cartilages. It is most common as the result of age; indeed it would seem to be a normal result of senescence. In the earlier stages, the deposits of lime are comparatively harm-

less, or at least they are easily borne by the tissues, if not excessive. The forms of the tissues are retained in their outlines, and it is only in the more advanced stages that the physiological functions of the parts are seriously interrupted, or cease entirely. When large masses or secretions of calcareous character occur, we generally find some pathological nerve formation as the foundation. They have often as a nucleus some mechanical substance; deposits in kidneys, bladder, lungs, &c.

III. Pigmentation is a process of infiltration of a pathological character quite similar in many respects to calcification of tissues. From our present knowledge of the chemical nature of the coloring matters infiltrated into the tissues, or found there, there can be no doubt that they are derived from a pre-existing albuminous compound, the hæmatin, or coloring matter, of the red corpuscles of the blood. The hæmatin is combined with a colorless albuminate, globuline or crystalline.* In pathological processes, then, as in the gradual changes of advanced life, when deposits occur, we may presume that other cells, also, as well as those of the liver, &c., may have or acquire, the property of introducing or separating the coloring matter from the serum of the blood, and of condensing it as a deposit in their structure. The material is always present in the blood. In the majority of cases it is probably due to local disturbances in the circulation, especially to abnormal and persistent accumulations of blood, as in hyperæmia and stasis, and particularly by extravasations, in small areas, or capillary hæmorrhages, in which there is repetition of the hæmorrhage for several days. The blood corpuscles, thus cut off from the general current, become

*The hæmatin, as is shown by Valentine and Staideler, is the radical base of the bile coloring matters, the coloring matter of urine also, giving all the scale of colors from red and yellow to brown and black, which we find in the various pigmentary impregnations.

discolored, and this altered hæmatin or hæmato-globuline is secreted in a soluble form, and taken up by the cells of the surrounding tissues. Hence the frequent occurrence of pigmentation of the ganglion cells of the nervous system, due, as remarked, to frequently repeated hyperæmic states, as the pigmentation in the medulla, in epilepsy, where there are good reasons to suppose the existence of capillary hæmorrhage, from the symptoms. These phenomena are still more strikingly associated in the progress of general paresis, in which we see marked pigmentation. The cells are more frequently pigmented through the intercellular substance, and the fibres, and the homogeneous membranes. In pigmentation, however, the nucleus remains, so that we are probably justified in concluding that the cell function does not entirely cease in this form of infiltration. How far the disturbance of function may occur, we can not know, except by further investigation.

IV. The fourth, and perhaps the most important condition of infiltration is the fatty. The condition of fatty infiltration of the tissues, as heretofore stated, is clearly distinguished from fatty involution. The occurrence of fatty globules and deposits in the cells, is simply the presence of a sufficient amount of this normal constituent. But the fat thus retained in the protoplasm of the cell clearly indicates a pathological condition. The fat is first deposited in small shining globules, as seen under the microscope, which, in further advanced stages, flow together and constitute large drops of fat. These accumulations often so increase as to press the nucleus and protoplasm of the cell aside, so that a single large globule will sometimes fill its entire cavity; however, when the nucleus remains, the fat may be absorbed and the nucleus resume its functions. The question would arise from what source

have we this quantity of fat? In fatty dyscrasia the blood shows signs of change, the serum is opalescent, tinted and emulsion-like. Fats are removed from one part of the system and deposited in other parts, a fatty metastasis. Local fatty infiltrations are generally accompanied by an atrophy of the parts involved, and a general or local diminution of the chemical activity. This is so in a marked degree in fatty infiltration in muscles. The physiological consequences of fatty infiltrations are very different according to the organs and tissues affected, While a liver whose cells have undergone those changes, has not entirely lost its power of yielding bile, or while a fatty infiltrated vessel still resists the pressure of the blood current, and thus has some action; the fatty muscle or nerve fibre seem at once to show defect, and finally the physiological power is extinct.

In involution the pathological processes are widely different from those of infiltration, which we have just discussed. These were pointed out generally in the early part of this paper. In involution the changes are not passive and retrogressive, as in infiltration, but active and progressive. In involution we have changes not only in the protoplasmic contents of the cell, but in the cell itself; an actual transformation into a cell structure of a different character and form. While the metamorphosis progresses, the functional life of the cell gradually ceases.

As heretofore stated, the change in involution commences in the nucleus, or even in the nucleolus of the cell, and thus it would seem that this elemental or germinal point was concerned in the morbid action in the very beginning, in this process of degeneration. There are four recognized forms of involution: 1. Fatty metamorphosis. 2. Cloudy swelling. 3. Mucoid soft-

ening. 4. Colloid degeneration. In regard to the chemistry of these degenerations there is very little known. In fatty involution we have first the separation of fat in minute globules from the albuminous protoplasm of the cell, with which in the normal state it is intimately combined. In cloudy swelling there is coagulation of the albuminates of the cells, and the protoplasm is transformed into a minutely granular substance, while at the same time the nucleus commences to swell by imbibition into an irregular body. In mucoid softening, contrary to this the albuminates become soluble. In colloid degeneration, there is coagulation which forms a body of a gelatinous consistence. These are the general characteristics in these several changes in involution.

I. The anatomical appearance of a cell undergoing fatty involution may be thus described. The nucleus of the cell loses its smooth, shining and transparent appearance, and the nucleolus is observed by an accumulation of finely divided, granular, fatty matter heretofore spoken of. Soon afterwards it swells up, and then, instead of seeing one nucleolus in the nucleus, you will see two or three small spherical nucleoli formed. The nucleus now fills out until it occupies the whole space of the cell, and divides into two, three or more granulated masses, which rapidly enlarge, and finally rupture the membrane of the cell. Then you see distinctly the several granule cells. These, in a limited degree, may again multiply by division, a process, however, which soon ceases, leaving the already formed granular masses for further changes. The fat of the granule cell crystallizes, or the granular corpuscle itself disintegrates, and a fatty ditritus is formed, without cell life or organization. These now become the nidus for local softening. You will recall here the fact that the

fat in infiltration remains in the cell, while here, in involution, it is at length outside, and this is fatty degeneration.

II. The condition of a cell in cloudy swelling, in consequence of the coagulation of the albuminates as before stated, resembles very much the phenomena observed in cells in the condition of *rigor mortis*, where the protoplasm, also coagulated, becomes immovable. But there is this striking difference. In cloudy swelling the nuclei show an augmented activity, as in fatty metamorphosis. They are found enlarged, and the whole cell is puffed out. (These granules are not yet fatty, but are soluble in acetic acid, and need not, therefore, be mistaken for the first stage of fatty involution,) and the nucleus soon divides. Afterwards, it passes into fatty metamorphosis, thus producing the destruction of the cell. In some cases, however, the process recedes, and the cells return to their normal constitution.

III. Mucoid softening, the third condition of involution, is a process in which the tissues undergo a gradual liquefaction in consequence of the albuminates passing, under a pathological process, from a solid to a soluble condition. These albuminates, under this modification, are collectively called mucus, a substance which has an extraordinary capacity of swelling by imbibition, and thus forming a substance presenting all grades of consistency from that of tough jelly to a thin synovia. This modification is also marked by another quality, an entire incapacity for diffusion. This peculiarity is of the greatest importance. When a tissue has undergone these changes, the product will remain where formed, until it is either mechanically removed or is converted into another substance capable of being absorbed. When the mucus remains, it will be at all

times likely to enter into the composition of new pathological structures and textures, among which the so-called mucous tissue is the most prominent. The softening of the cartilage is illustrative of mucous tissue. You will bear in mind that this mucus cannot be absorbed by capillaries, or be in any way taken into circulation, as its consistency forbids this.

IV. Intermediate, between mucoid softening and cloudy swelling, according to its anatomical appearance, is the fourth condition of involution, colloid degeneration. The colloid substance is a colorless, transparent globule, of a fat-like refraction, and a trembling gelatinous consistence. Colloid bodies are developed within the cells. The protoplasm takes on uniformly a homogeneous and strongly refractive state, and the nucleus is pressed to one side, against the enveloping membrane of the cell, as the globules grow, and at length the colloid mass or globule, loosening itself from the place of its formation, takes the place of the cell. Thus freed, it continues to enlarge, and pushes aside the surrounding tissues, and there is formed there a kind of smooth walled cyst, or there may be a system of anastomosing or intercommunicating cysts, as in the so-called alveolar cavities.

We proceed now from these general considerations of pathological formations, to those which have been found in the brain and nerve system. The nervous centers are the most complicated structures, the seat of the most obscure phenomena, and so protected from physical exploration that their study is necessarily surrounded with difficulties. From examination of cases of unmistakable insanity, we find that with the exception of colloid degeneration, the conditions of involution are more frequently found in acute insanity, while in the chronic and progressive stages of the disease, conditions of infiltration prevail.

(We leave out of consideration pathological nerve formations, such as tumors, cancers, &c.)

Commencing in the vascular system, inducing states of hyperæmia and consequent anæmia, we have the greater part of the first causes of the histological changes observed. The conditions of dyscrasia and their consequences are here to be included. The hyperæmic state and local stagnation of the blood must produce a saturation, so to speak, of the tissues with fluid. We have the formation of aneurismal dilatations of the vessels as one condition impairing their walls, and producing pressure; as a consequence of this, we may and do have dissecting aneurisms, or pouring out from the vessel, through its ruptured wall, a quantity of blood into the adventitia. The adventitia may also give way and we may then have this blood free, or a hæmorrhage may at once occur, of considerable amount. Now, in those conditions it is plain we have the preparative states for inflammatory action and softening, and at least local destruction of the part.

Again, if a small area of brain matter becomes hyperæmic, the blood stasis in the arteries and capillaries may not only diminish the supply of nutritive fluid to the parts and the cells with which they are anatomically related, but this stasis may continue and become so complete as to entirely deprive the tissues of fluid. In the first condition we have at once an anæmic state, from defective supply, and this condition may continue, and when there are numerous areas thus affected, may induce a quite general anæmic state. The consequences of this will be diminished production of nerve force, embarrassed cerebral action, and general physiological disturbance. Out of such conditions we have the commencement of insanity. If the second condition occurs, that of complete stasis or embolic packing, and

the circulation is entirely arrested in the area affected, then the processes of involution are set up, and the vessel, with its contents, is transformed into fat granules, as we have found on examining recent cases, where death took place not only in the first stages of the disease, but accidentally, or at least not as a consequence of progressive insanity, or any acute inflammatory process in the brain. So also the cells themselves and the neuroglia and the nerve fibres unnourished, must undergo some one of the processes of degeneration.

These changes embrace the entire range of pathological anatomy and in chronic cases, all these may be found. These products bear a relation, in some degree, to the progress of the disease. Their order would seem to be: 1. The vascular system. 2. The connective tissue, or neuroglia. 3. Ganglion cells and new fibres. The etiology of these changes, that is the cause and history, as far as we have knowledge is as follows: first, hyperæmia then anæmia. In considering the changes which take place in the vascular tissues, we must look at the structure and distribution of the vessels in the various parts. Each part of the nervous center has its peculiar vascular arrangement, and the consequences of irregular circulation are modified thereby. The parenchyma of the reticulated structures of the membranes of the brain, requires but little nutrition itself, but the other membranes, the arachnoid, the pia mater, are a net-work of vessels, large and small, with abundant space for dilatation in their delicate and loose structure. This structure, therefore, presents favorable conditions for setting up inflammatory processes, for their extension, and for exudation, and we have these conditions as the result of pathological disturbances in the circulation, as meningitis, &c. The dura mater is compact in structure, and there is but little space

in its parenchyma for inflammatory processes and hyperæmic conditions; exudations are mainly found on its inner surface.

The brain substance itself is compact, and its vessels are almost entirely of the smaller caliber, and serve only for the purpose of its nutrition. The vessels, too, are far more numerous in the grey cortical portions than in the white or fibrous structure. The vessels of the brain tissue also have little connection as a system of vascular distribution. Each area of nutritive vessels represents small territorial areas of tissue. States of hyperæmia are therefore more likely to occur in limited sections of the brain, owing to this character of vascular supply. The vessels imbedded in the dense nervous tissues, are also, except in a very limited degree, little capable of distension and contraction. The enveloping sheath or adventitia, with its contents, (the so-called perivascular sheath and perivascular spaces,) are the only channels for allowing distension from superabundance of fluids; hence the favorable conditions for impacting the vessels and impeding or arresting the circulating fluid. This structure is also unfavorable in its anatomical arrangement for receding processes, or removing of the pathologically increased quantity of blood or other products, as deposits or exudations.

This structure of the nervous centers, as must be apparent, in their relation to the heart and circulation, must favor exudative processes, dilatation of vessels, aneurismal conditions, as the miliary aneurisms of Charcot, dissecting aneurisms of Virchow, which are prominent among the conditions which initiate local cerebral hæmorrhages. They also, by pressure on the surrounding tissues, produce disturbance of functions, and pathological changes in the otherwise unaffected tissues, and thus diffuse or extend the mischief; hence

the facility with which, in limited sections of the brain and cord, a hyperæmic state, or conditions of fullness of vessels may be developed by increased or diminished heart action under feeble conditions of nerve energy. In ordinary cases of nervous prostration, especially connected with hysteria, we frequently see those hyperæmic localizations in the eyes, face and neck, and sometimes even well marked ecchymosis from rupture of capillaries. These hyperæmic conditions continuing, we have stasis of blood in the capillary vessels and a thrombic condition of the vessels by the gradual impaction with blood corpuscles. This state more seriously interferes with the supply of the blood, and anæmia is set up in the parts of the tissue which those vessels supply. Finally, this continuing, the vessels having still further filled, an actual state of embolic packing takes place, and the supply is completely cut off in the vessels affected. Thus the anæmic state is increased. These conditions, as our investigations have shown, occur not in isolated vessels in those locally hyperæmic areas, but in a large proportion of the vessels. In the embolized vessels there is no longer function, and they are in a condition for states of fatty involution, or the other processes of degeneration mentioned. So also are the neuroglia, the nerve cells, and nerve fibres implicated, as we have distinctly seen through the microscope, in cases examined.

This summary of anatomical changes, and the pathological physiology associated therewith, brings us to the description of certain products or changes of the brain structure in insanity, which we shall endeavor to illustrate. It is proper to remark that in dealing with such delicate tissues and such minute objects, already largely magnified on the photographic plate, and some of them, when thrown on the screen, more than twenty thousand

diameters, you must not expect to see the whole field well defined. An object, as a capillary vessel, or a process of a ganglion cell, or a nerve fibre may be shown by a magnifying power, under which it would be difficult, if not impossible, to show at the same time the more minute structure. This obliges us to show a larger number of slides.

The following were presented from photo-micrographs on glass, by aid of the magic lantern, to illustrate the address :

I. Vessels.

1. A curved capillary, with its lymphatic sheath, distended and infiltrated with fatty and pigmentary masses, from the upper central convolution of the brain—in paresis.
2. Dissecting aneurism in a small artery of the brain. Rupture of the internal coat, and effusion of blood into the adventitia.
3. Thrombus in a small artery of the brain, organized and attached to the lower wall of the vessel, filling two-thirds of its lumen.
4. Embolism of a capillary from the corpus striatum—in acute mania.
5. Embolism of three branches of a capillary from the corpus striatum—in acute mania.
6. Fatty involution of the nuclei of the spindle shaped cells of a capillary. The cells outlined by treatment with a solution of nitrate of silver—acute mania.
7. Fatty involution of the nuclei of the spindle shaped cells of a capillary, further advanced stage, division of the nuclei—acute mania.
8. Fatty involution of the nuclei of the spindle shaped cells of a capillary, third stage, disintegration of the vessel—acute mania.
9. Fatty involution of the nuclei of the muscular coat of an artery of the brain, development of granule cells.
10. Fatty involution of the nuclei of the adventitia of a vein, and developed granule cells.
11. Chain of granule cells with the residua of a disintegrated capillary.
12. Cluster of granule cells with residua of disintegrated capillaries.

13. Complete fatty involution of an artery and infiltration of the same, with granule cells.

II. Nerve cells, nerve fibres and neuroglia cells.

1. Healthy ganglion cells from the anterior horn of the spinal cord.

2. Healthy ganglion cells from the posterior horn of the spinal cord.

3. Healthy pyramidal cell from the third layer of the upper central convolution, with a connective tissue cell attached to it.

4. Two pyramidal cells of the third layer, in the first stage of fatty involution.

5. Complete fatty involution of a large group of pyramidal cells from the second and third layer; the cells are transformed into chains of pearl-like granules, so arranged that they still resemble the shape of the cell; the processes are disintegrated.

6. One of the cells more enlarged.

7. Healthy pyramidal cell from the third layer of the third left frontal convolution.

8. Pyramidal cells from the same region with two nuclei of the neuroglia, in complete fatty involution.

9. Pyramidal cells from the third layer of the upper central convolution in a state of cloudy swelling.

10. Healthy connective tissue cells, the so-called Deiter's cells.

11. Group of Deiter's cells in a state of cloudy swelling.

12. Transverse section, through the lateral columns of the medulla oblongata, showing the fibres and their axis-cylinder, in health.

13. Transverse section through the same region in fatty involution—paresis.

14. Longitudinal section through the same region in fatty involution of the nerve fibres—paresis.

15. Colloid bodies in large ganglion cells of the medulla oblongata.

16. Section through the root of the nervus trigeminus, with colloid bodies.

17. Section through the medulla oblongata near the raphé, with colloid bodies.

18. Fatty infiltration of a large motor cell of the spinal cord.

19. Pigment infiltration of two ganglion cells of the posterior cornu of the spinal cord.

20. Amyloid bodies from the ependyma of the lateral ventricles.

21. Calcification of pyramidal cells of the third layer of the upper parietal convolution—in melancholia.

22. Concentric arrangement of oblong nuclei of the neuroglia, in first stage of calcification.

23. Concentric arrangement of oblong nuclei of the neuroglia, in second stage of calcareous infiltration in the center of the concentric layers.

24. Concentric arrangement of oblong nuclei of the neuroglia, in state of complete calcification

25. Concentric arrangement of oblong nuclei of the neuroglia, a very large mass breaking up.

26. Transverse section through the anterior quarter of the medulla oblongata at the level of the fully developed olivary bodies; showing a part of the raphé, the left olivary body, the nucleus of the lateral column, the left anterior pyramid.

27. The same in a case of paresis, showing sclerosis of the anterior pyramid.

28. The sclerosed patches more enlarged.

CASE OF MRS. JANE C. NORTON.

BEFORE THE STATE COMMISSIONER IN LUNACY.

The People, on complaint of JONATHAN T. NORTON,	}	<i>Tort to a Lunatic.</i>
<i>against</i>		<i>Contributory acts.</i>
THE SOCIETY OF THE NEW YORK Hos- PITAL.	}	<i>Value of testimony</i>
		<i>covering a period</i>
		<i>of past insanity.</i>

Present—JOHN ORDRONAU, *State Commissioner in Lunacy.*

CASE AND OPINION.

STATEMENT OF FACTS.

On the 22d day of January, 1874, Mrs. Jane C. Norton, of Brooklyn, wife of the relator, was duly committed as a lunatic to the Bloomingdale Asylum. This institution is a department of the New York Hospital, and under the administrative control of its Board of Governors. She was removed therefrom by her said husband, while still uncured, on the 24th day of December in the same year. The form of insanity under which she labored, was that known as puerperal, and it was accompanied by fixed delusions affecting her memory of faces and persons, so that she was constantly mistaking visitors, the patients in the same ward with her, and the physicians in daily attendance, for her husband and children. In relation to facts outside of herself, her memory was generally good during the period of her insanity; in relation to facts belonging to her person, her feelings, and other self regarding incidents and events, it was extremely faulty, and when crossed by her delusions was unreliable as

an appellate tribunal of past occurrences. The exact limits of occultation of her memory, and the varying degrees of obscurity exhibited by it during the passage of an umbra or penumbra, over her mental horizon, form curious phases of disordered action in the processes of recollection, and impart to her testimony a character very difficult to weigh, in the balance of intellectual veracity.

About a year after her removal from the asylum, she complained to her husband of abuses inflicted upon her while there, and notably of an injury done to her throat while being fed by two attendants forcibly and against her will. She was at that time laboring under the delusion, that to eat would destroy her children, and would have starved herself had she not been fed by compulsory means. On examining her throat her husband found it greatly disfigured, and showing evidences of past extensive laceration. It is now permanently deformed. But neither voice, speech nor swallowing appear at any time in the past to have revealed its condition to those about her, and her own statement of the fact was its first discovery to any one. She also charges the same attendant with purposely and violently jamming her hand and wrist in the crack of a door, and of using insulting language to her.

Believing in the truth of these statements her husband thereupon instituted proceedings before the State Commissioner in Lunacy against the Society of the New York Hospital, for the alleged torts committed by their servant to the person of his wife, praying that the same might be duly inquired into, and such remedy applied as is provided by statute.

The hearing of the case occurred on the 13th October, 1876, and the judgment thereupon is expressed in the opinion which follows:

OPINION.

The case presented for adjudication, upon the facts now in evidence, is one primarily of *tort* arising from the negligence of a servant in the employ of the respondents. It rests, therefore, upon that well established principle in the law of agency, which makes the act of the servant the act of the master whenever performed in the line of his duty, and fixes the responsibility for the consequences of such discharge of duty upon the master, in obedience to the maxim of *respondet superior*. But apart from the legal aspects of the case in their relation to any just cause of action arising therein, several novel points in the law of evidence have arisen upon the hearing, for which there are no precedents in the books. Their discussion consequently opens a new field for judicial inquiry, in relation to the value of the testimonial evidence of insane persons, or of those who having been insane are restored once more to their civil rights. The opportunities for such testimony are multiplying daily, and the responsibility, both legal as well as moral, which it may tend to fix upon the Managers and Superintendents of our lunatic asylums, are so grave that I feel myself justified in the discharge of the new and judicial duties imposed upon me by statute, in making a precedent of this case, and in announcing, at the outset, the conclusions of law, by which I shall hereafter be guided in disposing of similar issues.

The following are these conclusions, viz.:

First. That in an action against the custodians of a lunatic for *tort* to his person, he is a competent witness, but the defendants may show acts, on his part, of a contributory character tending to set in motion the

causes of the injuries complained of, although intention can not be imputed to him.

Second. An insane person may be competent to testify to facts not relating to himself, according as the Court is satisfied with the degree of his understanding, and a person who has been insane, and is apparently recovered may testify to facts occurring during the period of this insanity, *provided* that in both mentioned cases the facts testified to are objectively demonstrable, and constitute a basis from which to begin such testimony.

Third. A personal and self regarding incident occurring during a period of insanity, and testified to by its subject either while still insane or when recovered from that state, is not *per se* an evidential fact, and its probative force rests wholly upon corroborating circumstances.

I need hardly say that these conclusions are derived from principles in the law of evidence, which have become fixed by time and experience. They are the metewands of the law in respect to all testimony, for however sincerely and veraciously given that testimony may be, the constitution of the human mind is such that since even in health it is amenable to error, it must follow that in disease error is the tendency against which it can least protect itself.

The facts wearing the semblance of mal-administration which the relator prays may be inquired into are embraced in the following inquiries:

First. Whether the governors of the New York Hospital now have in their employ at the Bloomingdale Asylum, an attendant named Jane Eaton, whom he avers that he has reason to believe is negligent, incompetent and cruel in her treatment of the insane.

Second. Whether certain injuries alleged by him to have been inflicted upon his wife while a patient at that asylum, and under the immediate care of the said Jane Eaton, were, as matters within the purview of the proper medical supervision of his wife, known to the physicians in charge of her, or to the Governors of that institution.

Third. Whether if such alleged injuries escaped the observation, and were never brought to the knowledge of either the physicians or Governors aforesaid, while his said wife remained committed as an insane person to their custody and medical supervision, then, whether any system of concealment is habitually practiced by attendants in the Bloomingdale Asylum, whereby the physicians thereof are not kept duly informed of the physical and mental state of their insane patients, and can not in consequence maintain such a record of their cases as required by law.

Fourth. Whether, if such facts so alleged by him be substantiated, the system permitting their existence is not one dangerous to the well being of the insane, and calculated to destroy public confidence in the administration presiding over an institution devoted to their care.

Before proceeding to the consideration of these charges, as seen in the light of much conflicting testimony, it may be well to review the position which under our lunacy statutes, as recently codified, the parties before me occupy towards each other. For although these statutes do not alter the common law relations of the relator to the respondents, they have newly declared the powers of the State as the custodian of its insane citizens, by instituting methods of supervision, visitation and judicial inquiry into their

condition, not heretofore promulgated in the form of legislative enactments; a few sentences will suffice to explain the spirit and scope of these statutes.

The statute creating the office of State Commissioner of Lunacy was designed to provide immediate remedies solely for persons in the actual custody of asylums. (*Vide chap. 446 of 1874, Tit. 10, § 4, and amendments thereto in chap. 574 of 1875, and chap. 276 of 1876.*) The reason is obvious. For those who may have been patients in them, and are no longer so, the courts are open for any redress to which they may feel themselves entitled. If they have been wronged they have their remedy at law, but that remedy can not be obtained from the Commissioner, for they are no longer within his jurisdiction. It was to protect those who can not protect themselves by appealing to courts that the statute was passed, and even the remedies which the Commissioner can supply are in their nature only provisional, and in no wise modify the original jurisdiction of courts in similar cases. It is only therefore under the second clause of the forms of possible and prospective wrong to lunatics, recited in the statute as a foundation authorizing the intervention of the Commissioner, viz., "*whenever there is inadequate provision made for their skillful medical care, proper supervision, and safe keeping,*" that I find myself authorized to act in the present case.

Giving the most liberal construction to the powers granted me by statute, the wrong to be remedied must be either actually happening to a patient now in an asylum, or so generally impending as to constitute a constant menace to his health or security, and thus to form part of a system of habitual mis-government of the institution. I can not, therefore, act upon a mere presumption of wrong, but must be justified by such

evidence as would amount to a strong probability, derived from a course of events moving generally in one direction.

Now, there is no allegation before me that any patient is to-day, or has been at any time before or at any time since Mrs. Norton's detention in the Bloomingdale Asylum, habitually maltreated or neglected, or in any way inadequately provided with "*skillful medical care, proper supervision and safe keeping.*" All presumptions derived from time and the history of that institution are to the contrary.

The relator, in his affidavit, confines himself exclusively to charging acts of cruelty or harshness as having been inflicted upon his wife by an attendant in the asylum. But he does not state that he believes such acts were done either with the knowledge, assent, or by the command of the medical officers of the institution or its managing board, the Governors of New York Hospital. Nor does he state that he believes such acts either are or have been of common occurrence there, or that they have ever been repeated.

If the acts of wrong, charged by him against the attendant, Jane Eaton, are merely personal acts limited to his wife alone, and not acts of agency done in the line of her appointed duty, then, whatever their nature or consequence, I can administer no relief to the relator, since his wife is not a patient in the asylum, and is not within my proper legal jurisdiction. But, if I rightly understand Mr. Norton, the motive which has inspired him to demand this investigation is not one of obtaining personal redress against either Jane Eaton or the Governors of the New York Hospital. He brings his complaint before me asking to having it inquired into whether the wrongs alleged to have been committed upon his wife, are part of a system of erroneous

supervision now in force at the Bloomingdale Asylum. This is the crucial and only point in fact upon which I am authorized to adjudicate. If he has established that fact, he has substantially established his whole case—if he has failed to do so under the rules governing the construction of legal evidence, then there is properly no case upon which I can pass.

The testimony of the relator shows that his wife, being insane, and adjudged a fit subject for treatment in an asylum, was admitted to Bloomingdale on the 22d day of January, 1874, where she remained until December 24th in the same year. That some few months after her commitment there, she grew worse and had to be removed to a different ward from that in which she was first placed, when she came under the charge of two attendants, severally named Jane Eaton and Jane Gordon. That during her stay in this ward she was very weak, and labored under certain hallucinations, all of which led her to refuse taking food. That, in consequence of this, and in order to save her life, it became necessary to feed her by force, as is usual in similar cases. That this feeding was done by Jane Eaton in the presence, and by the assistance of Jane Gordon.

The relator further testifies that on several occasions, while visiting his wife, he saw bruises upon her face and neck, which he believes were inflicted by Jane Eaton. But he never saw her strike his wife; nor did his wife while in the asylum make any such assertion; nor did any person tell him of this fact until nearly a year after her return home. His wife then for the first time communicated the fact to him.

He further testified that he saw on one occasion fresh blood issuing from his wife's mouth, which he also believes was the result of violence done to her throat by

the "*unwarrantable jamming of a spoon or some other rough instrument in the hands of the said Jane Eaton.*" No other person told him of this fact, save his wife, nor did she till nearly a year after her return home. Mr. Norton's testimony is, therefore, largely hearsay, and in law does not even amount to presumptive evidence.

Mrs. Norton's testimony is to the effect, that while she was in the institution at Bloomingdale, she thought she was surrounded by bad people who would injure her, and that in consequence she dared not make any complaints while there, even to her husband; that she refused to take food, because she believed it would injure her children, and that thereupon she was forced to do so by the attendant, Jane Eaton; that said Jane Eaton, in order to intimidate her solely, and to punish her for refusing to take food, was in the habit of calling for a large spoon, which she would then thrust, with the convex side up, into the witness' throat, at the same time moving it up and down, whereby her throat was injured and permanently disfigured. (The throat of Mrs. Norton, on being examined by Drs. Sands and Choate, both experts, shows that it has been lacerated, and that adhesions have taken place between the right lateral margin of the *velum palati* and the *uvula*.) Mrs. Norton further testified that Jane Eaton deliberately jammed her wrist several times in the crack of the room door, drove her naked through the ward to the bath-room and back, and frequently used opprobrious language to her. She admits that she never stated any of these things to her husband while he visited her at the asylum, nor until nearly a year after her return home, but explains this by saying, that her sister advised her, that, by waiting, her mind would grow stronger and better able to recall all these events.

On the part of the respondents, it is admitted that Mrs. Norton was a patient in their asylum during the

time set forth by the relator, and that she was discharged therefrom while still uncured of her insanity; that she was at one time very weak, and under such delusions as to forcibly refuse taking food, whereby her life was seriously endangered; that it became necessary, in order to save her life, and as part of the legal duty of these respondents, to feed her by such coercion as would overcome her resistance; that this duty was assigned to Jane Eaton, an attendant, who had been employed as such for fourteen years in their asylum; that said Jane Eaton was accustomed to the performance of such a duty, and that they had every reason to believe her possessed of the necessary skill, prudence and experience to discharge it; that no charge of neglect, unskillfulness or harshness had ever before been made against her, and that in the duty of feeding Mrs. Norton, she had always been aided by Jane Gordon, a fellow attendant in the ward, who was also, in their opinion, trustworthy. The respondents further showed that they never knew of any injury being done to Mrs. Norton's throat while in their care and custody; and that by the experience obtained from the daily events transpiring in their asylum, they had reason to believe that the bruises seen upon the face and neck of Mrs. Norton, were inflicted by other patients, whom she had annoyed by seizing hold of them, through her delusion that they were her husband or children.

They admit that it is possible Mrs. Norton's throat may have been injured during the process of feeding her against her wishes, and by force exercised to overcome her own resistance, but they submit that the act of so feeding her was necessary to save her life, and constituted an essential part of the medical treatment, which they were, by law, obliged to furnish, and that it could not have been omitted or performed in any

other way, without a greater risk to her life. They also introduced several witnesses, to show both the good character as well as the habitual disposition of Jane Eaton for kindness, fidelity and patience, evinced towards the insane of all classes ; and showed also, by the testimony of Dr. Choate, an expert in insanity and long in charge of a large insane asylum, that injuries to the mouths of insane patients, when such patients forcibly resist taking food, and coercive measures in consequence have to be employed, were liable to happen, and were not, therefore, of infrequent occurrence. Dr. Brown, the Superintendent of Bloomingdale, also testified to the same fact. But neither of them had seen a case precisely like that of Mrs. Norton's throat. They, however, gave it as their opinion that such an injury was quite possible under the circumstances of forcibly feeding a refractory patient, and thought this the most rational theory whereby to account for the injuries in question.

Looking over the field of this evidence, it is manifest that all the acts done to, and injuries alleged to have been inflicted upon Mrs. Norton, must have occurred in the privacy of the ward, and that there were but three witnesses to them, viz., Mrs. Norton, Jane Eaton and Jane Gordon.

The veracity of none of these witnesses has been impeached, and each is entitled to credence to the extent of her knowledge of facts, or to the distance of her interest from the issue involved in the case. One of these witnesses, Mrs. Norton, was insane at the date of the occurrences which she related, and her testimony in law can not be accorded the rank of *prima facie* evidence. It is at best only secondary evidence ; but this distinction, which is a purely legal one, affects the quality and not the strength of the proof ; for if circumstances

otherwise corroborate the proof and show that its existence is consistent with no other theory than that set forth in the allegation, then the proof may be said to be established.

Now the capacity of any human mind to rightfully interpret events occurring about it depends upon a trained perception, an unclouded judgment, and an absence of all subjective relation to the matter under examination. Necessarily, also, every adult human being is steeped in his own temperament—wears the livery of his ordinary mental states—and exhibits the color of his predominant moral feelings. All these factors habitually enter into and may infect the subject matter of a judgment, and thus may put limitations upon its freedom. We acknowledge this when we say that no man is a good judge in his own case, and the law recognizes these springs of human action, when it determines that no man shall try his own case.

Thus when a person who has once been profoundly insane and has apparently recovered his reason, undertakes to describe with particularity events occurring during that period, we are compelled to scrutinize such statements, not from a standpoint of veracity so much as from one of intellectual competency; because we know that insanity permanently enfeebles the mind, and that an act of self introspection involving memory becomes thenceforth more difficult; and because, also, in the effort to perform it, the mind is apt to fall into the oldest worn channels of thought—those, in fact, which were most used during the period of its greatest insane activity.

In consistency with this law of our mental constitution, which is both recognized and engrafted upon our municipal code, we can not but regard the judgments of the insane, in all matters affecting their personal feel-

ings, as peculiarly liable to error. Such mental efforts are generally wanting in capacity for comparison and in freedom from self enslavement—therefore in certainty. They all, more or less, exhibit the distorting influences of a disease whose overshadowing feature is its tendency to confound the subjective with the objective. It is not the fault of the insane, therefore, if their judgments on personal matters are so often bound up in adamantine fetters of conviction, forged in the workshop of imagination rather than of demonstration. This was the reason why the common law anciently rejected the testimony of the insane as incompetent in itself to enlighten a judicial inquiry, unless such lunatic was in the enjoyment of a lucid interval, but not otherwise, since in matters of evidence no degrees of lunacy were anciently recognized at law, and in several cases a lunatic was treated as a dead person, so far as his competency to testify was concerned.

Coke Litt. 6, *a Ibid.* 247; *Currie v. Child*, 3 *Camp.* 6, 282; *Adams v. Kerr*, 1 *Bos.*; and *Pull*, 360; *Ben-net v. Taylor*, 9 *Vesey* 381; *Comyn Dig. Test moigue*; *Grotius J. B. et P. Lib.* 2 c 13 § 2.

But these rulings belong to a day when few, if any, insane asylums existed, in which to immure such persons, and expose them to the possibilities of undiscoverable outrage. And it will be observed that none of these decisions touch the point now before us, relating to the competency of one testifying to events occurring during a period of past insanity. We are left, therefore, to seek the law governing the value of such evidence in natural equity, enlightened by mental philosophy, since with the change of circumstances produced by the erection of asylums, containing in the aggregate thousands of lunatics, has also come the necessity of relaxing the old rule, and allowing them to testify in their own behalf, whenever found competent.

Courts have always looked with distrust upon the testimony of the insane, because of its generally misleading character. Nor will this appear surprising when we recall the disturbing influences produced by insanity upon the moral, as well as the mental faculties. From the earliest of our decisions touching the competency of such evidence (*Livingston v. Kiersted*, 10 Johns. 362, A. D., 1813. *Hartford v. Palmer*, 16 Ib. 143, A. D., 1819) down to the present day, this form of proof has never been considered *prima facie* wherever any other relating to the same series of facts could be obtained. The reasons for this are aptly set forth in the case of *Holcomb v. Holcomb*, 28 Conn. 181, A. D. 1859, where the court, commenting upon the value of such testimony, said :

“The inlets to the understanding may be perfect, so far as any human eye can discern; the moral qualities may all be healthy and active; the conscience may be sensitive and vigilant, and the memory may be able to perform its office faithfully, and yet, under the influence of morbid delusions, reason becomes dethroned, false impressions from surrounding objects are received, and the mind becomes an unsafe depository of facts. * *

The force of all human testimony depends as much upon the ability of the witness to observe the facts correctly, as upon the disposition to describe them honestly; and if the mind of the witness is in such a condition that it can not accurately observe passing events, and if erroneous impressions are thereby made upon the tablet of the memory, his story will make but a feeble impression upon the hearer, though it be told with the greatest apparent sincerity.”

In 1851 a case arose in England which required a relaxation of the common law doctrine, excluding the testimony of the insane. There, a patient in a lunatic

asylum was so grievously assaulted by an attendant named Hill that he died of his injuries. Hill was thereupon indicted for murder, and a lunatic named Donnelly, who was one of the witnesses to the assault was, after examination by the Court as to his competency allowed to testify. Exceptions being taken to this on a case reserved, the judges were all of opinion that no error had been committed, it being held that the admissibility of such evidence was to be left to the discretion of the Court, since there was no unvarying principle by which to govern such cases. (*Regina v. Hill*, 2 *Denis*, C. C. R. p. 254, A. D. 1851; 3 *Dowl. Pract. Cases*, 161; *Temple & Mew*, 582; *Kendall v. May*, 10 *Allen*, 59; 1 *Whart. Cr. L.* 752.) In this case Donnelly being the most intelligent witness to the assault no better testimony could be adduced, and the facts testified to not relating to himself, no motive for misstatement or exaggeration could reasonably be imputed to him. Whether he would have been deemed a competent witness in his own case is a matter upon which the court did not express any opinion.

Except in the case above cited I can not find a single instance where a lunatic, not in a lucid interval, was admitted to testify before a court. In the only instance which approximates to it, viz.: (*Ex. parte*—3 *Dowl. Pr. Cas.* 161,) a party applied for a habeas corpus to bring up a person, who was confined in a lunatic asylum, for the purpose of producing him as a witness. The affidavit stated that he was *rational*. The court held that the writ could be granted if the party was in a fit state to be removed, and was not a dangerous lunatic. Both these cases, however, go to the extent only of showing that where no better testimony than that of a lunatic exists, it is competent to offer him as a witness, leaving the Court to decide upon his admis-

bility. But the common law doctrine remains nevertheless unchanged, wherever it can be applied without hindrance to justice.

The reasons for this exclusion are well stated by Mr. Shelford, who in his *Law of Lunatics and Idiots*, p. 621, says in confirmation of this doctrine that "the ground of excluding the evidence of insane persons, in courts of justice, requires little or no illustration, for it is obvious that they are altogether unfit to communicate such information as can be relied upon, or will afford a motive to assent in any case, and much caution is required in admitting persons who are sometimes insane to give testimony in a court of justice, even during their lucid intervals. When, indeed, the intermission of the disease has been long, and the facts concerning which the evidence is required is of recent occurrence, and no access of the disease has followed, evidence of the facts to which such a witness deposes ought to be received, more especially if other witnesses to the same point can not be obtained; but such evidence is liable to great suspicion, and will not perhaps be entitled to receive full credit, except in conjunction with and as corroborative of other proof."

It is upon these two last mentioned principles, viz.: that no other witnesses to the same point could be obtained, and second that it was corroborative of other proof, that the insane witness, Donnelly, was allowed to testify in *Regina vs. Hill*, and it is because of these same existing conditions in Mrs. Norton's case that I have felt it proper to admit her testimony. Nevertheless, since a period of insanity has always been considered at law as one of civil death from which no *prima facie* testimony could be elicited, great doubt must necessarily attach itself to the evidence of persons, who having nominally recovered from a state of insanity, seek to testify to facts occurring during its existence.

Assuming that Mrs. Norton is admissible to testify to facts occurring since her removal from Bloomingdale, or to facts occurring previous to her insanity, it still leaves the question of how well she remembers what happened during the period of that insanity. Her real competency to testify turns upon this. It is admitted that she was legally committed as a lunatic to that asylum, and was removed therefrom while still uncured. Nearly two years have elapsed since this event, but whatever changes for the better may have occurred in her mind, it is not in accordance with the laws of memory that impressions should grow fresher with the lapse of time. The reverse is in fact the case, for as Locke has beautifully expressed it: "The pictures drawn in our minds are laid in fading colors, and if not sometimes refreshed, vanish and disappear." (Book 2, ch. 10.) If this be the law governing the action of healthy minds, are we authorized to assume that this law wholly suspends its action in disordered minds? Or, in other words, can we assume that the memory gathers strength from the weakness of the organ which gives it expression? I can find no authority for such an assumption. Consequently, what may have been the range and what the limitations of Mrs. Norton's powers of memory during her insanity, and what they are now, become, in this connection, a very proper subject of judicial inquiry. For no presumptions of absolute recovery from a state of acknowledged insanity arise in law from the lapse of time alone. Something more than this is needed, and the burden of proof is on him who alleges it. (*Attorney Gen. vs. Parnter*, 3 Bro., ch. ca. 443; *Peaslee vs. Robbins*, 3 Metc., 164; *Hix vs. Whittemore*, 4 Met., 545; *Shelford on Lunatics*, 275; 1 *Gr'lf's Evid.*, section 42.)

It has been, therefore the invariable practice of courts to make this inquiry as a condition precedent to the

admissibility of the witness. It was so done in *Regina vs. Hill*, above cited; it was reaffirmed in *Spittle vs. Walton*, 40 L. J. Chancery, 368; and again in one of our own courts in *Campbell vs. The State*, 23 *Alab.*, 44; where Chief Justice Chilton, speaking to the point, said that "the question was, whether the witness, conceding him to have labored under mental delusion at a previous period, was, at the time of the trial, of sound mind." In Mrs. Norton's case, it seemed to me the more equitable way to allow her to testify in her own behalf, without previous examination, leaving that testimony to stand or to fall, as a test of her mental competency, according as it squared with itself, and was corroborative of facts otherwise circumstantially established.

The problem now before us, therefore, is to determine whether any lingering mists of insanity still obscure her mental vision, and whether the incidents to which she has testified are facts, recollected by her memory from objective data, or are the offspring alone of a belief of their having happened, together with such frequent self-repetitions of that belief as to fix them upon the mind as events having had a real existence. Experience teaches us that an insane impression, like the memory of a dream, may hover for years indistinctly in the mind, and the fact that we find it there, is no proof of its reality, but only of its persistence. By frequently recalling its outlines we gradually intensify its complexion, until it attains to proportions and to a distinctness never existing in the original. The baseless fabric of a cloud thus appears like a continent of matter, and becomes a tangible fact to the eye of the subjective beholder. In its natural state, the human mind is constantly passing through regions of fact and of fiction; is constantly besieged by intrusive ideas, which require power to control them, and education to utilize them.

Even the healthy intellect may delude itself unconsciously. The biographer of Charles Dickens asserts that while writing his inimitable fictions the author heard the voices of his imaginary characters speaking the words which he placed in their mouths. So true it is that in the workshop of the imagination the mind may give to "airy nothing a local habitation and a name," and thus may ideas of things, by long nursing, grow to become what at first they only seemed.

It is evident, therefore, that sane or insane, we see at best but "through a glass darkly," and constantly need to use that natural logic which God has given us as a guide and rectifier of our mental processes. Hence the law of testimonial evidence recognizes a difference between *knowledge* of a fact and *belief* of a fact; between an *incident* which may be simply personal and subjective, and an *event* which is objective and demonstrable. The probative force of demonstrative knowledge, is, in the absence of perjury, unqualified and conclusive. It is evidence of the highest order. The probative force of a belief, however intense or sincere it may be, only equals that of an inference. It is at best but a conclusion drawn from a postulate not yet established outside of the mind of the believer.

A number of witnesses were introduced to testify to the excellence of Mrs. Norton's memory, both before, and during her stay in the asylum, and many facts were stated by her relating to this period which were fully corroborated. But this excellence of memory in several particulars, does not justify the conclusion that it was so in all. It is well known that memory, even in the sane, is the most treacherous of all faculties. A person may have an excellent one of dates and names, yet at the same time have a very poor one of faces, and persons. Mental philosophers accordingly make a sharp

distinction between *capacity* of memory and *power*. To the former they ascribe a retentive memory, to the latter a ready one. (*Stewart Phil. of the Mind*, p. 248.) Mrs. Norton seems to have been gifted with a retentive memory, of which however, she evidently lost the power while insane, for she constantly mistook day after day the same persons for her husband and children, although as constantly reminded of her error by these very persons. Whatever may have been the portion of her brain affected, it is certain that it so impaired her physical sensibility and her power of attention, that no fixed impressions were made upon her mind by external causes. It was, like that of most maniacal patients, in the condition of a photographic plate between which and the sunlight groups of miscellaneous and over-lapping images are constantly passing. Distortion of that imagery was the inevitable result.

These phenomena are so commonly observed in insanity that they may be considered concomitants of that disease. Nor are their effects often recovered from, to the extent of a plenary restoration of the memory.

Although testifying with great confidence in the accuracy of her memory, Mrs. Norton still showed her present distrust of its power, by bringing a memorandum to the witness' chair with her. This fact did not surprise me. It simply convinced me that she was yielding to the necessities of a mental law without being conscious of it. On the one hand, she was asserting in her own evidence, and that of others, the infallibility of her memory—while on the other hand, she was seeking aid to sustain it.

We have seen from the evidence, that while insane, she lost all memory of the persons of her husband and children, mistaking men and women indiscriminately

for them, and although she testified that Jane Eaton deliberately jammed her wrist several times in the door, Dr. Burrall testified that on several occasions he unconsciously closed the door upon and pinched the fingers of Mrs. Norton, who had thrust them into the crack, without her being conscious that anything had touched them. Mrs. Norton, testifying to facts occurring during her insanity, is thus flatly contradicted by Dr. Burrall. Again, her delusion that every man or woman she met was her husband, or children, was not dispelled by her seeing such men or women daily. The delusion was fixed. Now what was its area? No one can tell, not even herself. Was it limited to one category of ideas, or did it embrace many? We can never know *a priori*. We can only infer from experience, of its conduct.

In undertaking to solve this problem it is well to recall that law of the association of ideas from which we learn that the mind does not consist of compartments with impassable walls between. It is more truthfully comparable to the ocean, where although we have millions of waves, we have but one common mass of water. The tidal wave created by a volcanic eruption on the coast of Chili, is next day felt on the coast of China. Has it traveled that immense distance in so short a time? Assuredly not. It is felt there only as the transmitted percussion of an original impulse, and the inhabitant of China may not only be ignorant of the place where the wave started, but more so still, of the cause which produced it. So too, in the operation of the human mind, we can not always tell whence an objective idea comes, nor what gave it birth. We often only know that it has come because we find it there, and if we can give no reasons outside of ourselves for its existence, we can not be said to know accurately the world about us.

In trying to form any estimate of Mrs. Norton's mental capacity we find it proved that while insane she constantly confounded and mistook persons. Familiar as her husband's and children's faces must have been to her, she yet was daily mistaking other persons, with whom she was in hourly contact for them. She states that Jane Eaton frequently struck her in the face. She does not say that any one else did. Yet Dr. Brown states that he has seen patients strike her in return for her seizing them. Has Mrs. Norton forgotten this? It seems reasonable to conclude that she had no knowledge at the time of these events, or of who it was that struck her. And if she had no definite knowledge of such facts can we concede that in thinking it was Jane Eaton who struck her, she was capable of judging rightly. The law demands moral certainty in evidence. It can not convict upon presumptions alone. Mrs. Norton thinks because she remembers a few things relating to her asylum life accurately, that she must remember necessarily all things. But we have seen that Dr. Burrall and Dr. Brown, both testify that she did not remember two of the plainest and most visible facts that can occur to a human being, both facts also being usually accompanied by a sense of pain.

In the case of a sane mind the fact would be surprising; but it is not so with the insane, in whom such things are of common occurrence. Which of these witnesses shall we believe? Mrs. Norton testifying to incidents which she believes she saw, while the shadow of an eclipse was upon her mind, or Drs. Burrall and Brown who saw as ordinary healthy minds see.

But the chief wrong charged by Mrs. Norton against her attendant, Jane Eaton, is that she was in the habit of deliberately thrusting a large spoon into her throat,

and moving it up and down as a punishment for her unwillingness and resistance to being fed. This she affirms occasioned laceration of her throat, and the permanent disfigurement which now exists. In making this statement she fails, however, to give us sufficient details of these occurrences to enable us to judge exactly what happened during this performance of being fed. Did she cough? Did she strangle while the spoon was in her throat? Did she know all that occurred? And since she is a truthful person and was permitted to make her statements at full length, I can not but infer that her omission to give any particulars touching her injuries, arises from the fact that being then confessedly insane, she did not know clearly nor entirely what was passing on around her. The four experts who examined her throat are of opinion that the injuries done it might occur from her forcible resistance to being fed. They can not explain it upon any other hypothesis. They also say it might occur without the agency of criminal intention.

Now Mrs. Norton admits resisting forcibly the attendants who were feeding her. She admits that they had to force open her mouth, and that she struggled against it, moving her head so as to embarrass those who were engaged in feeding her. It is evident she was not passive, but performing contributory acts, which might in the opinion of experts become the causes of self inflicted injuries. Being at that time insane we can not properly apply the doctrine of contributory negligence to her acts any more than to those of a child. In either case they are the acts of an irresponsible agent. But it would be against all equity to allow any person to derive an advantage from his own hurtful acts. No one can be allowed to profit by his own wrong, nor to charge his self-produced misfortunes to the disadvantage of another.

But apart from the effects of this internal evidence, thus casting distrust upon Mrs. Norton's credibility, it so happens that Jane Eaton was not the only person present at these forcible administrations of food. Jane Gordon, another attendant, was also present on all these occasions, and rendering aid; and although she participated in restraining Mrs. Norton's resistance, she never, as she states, saw Jane Eaton use any violence while feeding her, either before or during the act. She saw Mrs. Norton resist, and saw Jane Eaton force open her mouth with a large silver spoon, but never saw her thrust it into her throat or move it up and down. Here again are two witnesses against one, and these two not impeached.

The preponderance of evidence is thus seen to be in favor of contributory acts on the part of Mrs. Norton, causing injuries without her consciousness of the method of their occurrence.

From this mass of conflicting testimony, which has here been reviewed, and weighed in the balance of probabilities, we are led to certain conclusions of fact, to which it is now my duty to apply the same principles of law which govern courts in estimating the value of circumstantial as well as testimonial evidence.

It is necessary at the outset to bear in mind the relations subsisting between Mrs. Norton and Jane Eaton. The former was an insane patient in charge of the latter, whose duties varied with the incidents of the patient's disease. On one day she might need restraint, on another, not; on one day she might require feeding by force; on another, not. For the purpose of properly discharging these duties to Mrs. Norton, Jane Eaton was constituted the lawful agent of Dr. Burrall, having his authority to act in the manner directed by him. The act of feeding Mrs. Norton was in every

sense a lawful act, between which and an unlawful act, the law makes a great difference in personal responsibility for any mishaps which may occur thereby. Therefore, no presumption of malice attaches itself to an injury occurring in the course of a lawful act; and the burthen of proof rests upon him who alleges it. But, if it be an act involving skill and the party charged has contracted to furnish it, then a presumption of negligence arises out of every direct injury thence issuing. (*Wharton on Negligence*, § 26; Dig. L., 16, 213, 2; *Institutes*, Lib. 3; Tit. 24 (Sander's Ed.) p. 466; *Stanton vs. Bell*, 2 Hawks., 145.)

In the treatment of diseased persons, however, we are dealing with moral agents having more or less freedom of action, and the services of a physician or nurse can not be fully discharged without some concurrence on the part of the patient. In other words, the duties of the patient are subjective as well as objective. It must be borne in mind that we have to treat not simply a sick animal nature, but a sick animal nature influenced by a will power acting, as in the instance of the insane, very often against the interest of the individual's well-being. The contract under which the physician or nurse acts, particularly in the case of the insane, may be said to lack the most essential of ingredients in an agreement for medical treatment, viz., the ingredients of *confidence* and co-operation. A man who renders me a service against my will can not be said to be my agent. Hence, as most of the insane are under compulsory medical treatment, they can not be assumed to occupy the same moral and fiduciary relations to their medical attendants as do the sane. They are not bound to co-operate with their medical attendants in securing a cure in their own persons, as sane patients are, and their neglect or unwillingness to do so can not

be imputed to them as contributory negligence in an action for malpractice, any more than to a child.

And yet, since insanity at law is a term of variable significance, covering very different shades of mental unsoundness, I am not prepared to say that there could not be a phase of it in which a patient might be capable of such negligence as would amount to contributory wrong on his part. But in any case, no man can be permitted to profit by his own error, however void of intentional wrong that error may be. To the extent of his responsibility, he is responsible, and it has never been questioned, therefore, that an insane person was responsible in damages for torts committed to property. *Broom's Common, on Common Law*, p. 684; and ca. ci.

Nor in the relations of insane patients to their lawfully constituted attendants, can it be contended that, in injuries occurring to themselves through their violence and resistance to proper medical treatment, the entire responsibility for such wrongs rests upon their custodians. No one would be willing to assume the care either of children or lunatics if they thereby assumed responsibility for every possible accident which might befall them. The law imposes no such unreasonable obligations upon any one, and expects in turn no impossibilities from them. It considers the relations of the parties to each other, and apportions responsibility according to possibility, intention, and evidence of good faith in conduct.

The presence of insanity does not change, in law, the presumption that its subjects are still human, nor that they enjoy a certain power of choice in actions purely self-regarding. Principles of law may have necessarily to be modified in their application to them, but these principles are not thereby extinguished. Speaking of the duties of all patients, independent of their mental con-

dition, C. J. Lewis, of Pennsylvania, said: "It is the duty of the patient to co-operate with his professional adviser, and to conform to the necessary prescriptions; but if he will not, or under the circumstances he can not, his neglect is his own wrong or misfortune, for which he has no right to hold his surgeon responsible. No man may take advantage of his own wrong or charge his misfortune to the account of another (*McCandless vs. McWha*, 22 *Penn.*, 268.") And this doctrine was substantially re-affirmed in our own Courts, where it has been decided that if the injury was due to the plaintiff's fractiousness and disregard of the defendant's orders, the latter being judicious, no action would lie (*Carpenter vs. Blake*, 60 *Barb.*, 488.)

It will be observed also that neither Mr. Norton, in the remarks made by him introductory to his sworn testimony, nor Mrs. Norton, in her evidence, charge Jane Eaton with negligence, unskilfulness, or any delinquency as an agent or servant of the institution while engaged in feeding her; but allege that the act of thrusting the spoon into her throat was an act of deliberate personal malice, intended as a punishment. Now the probative force of any testimony will always depend upon its agreement with a state of facts which, the contrary, if established, would negative; and it is a well recognized principle in the law of presumptive evidence that "where," in the language of Mr. Greenleaf, "a criminal charge is to be proved by circumstantial evidence, the proof ought to be not only consistent with the prisoner's guilt, but inconsistent with any other rational conclusion." (1 *Greenleaf's Evid.*, § 34; *Hodge's Case*, 2 *Lewin, C. C.*, 227.)

Even taking Mrs. Norton's throat as evidence of injuries inflicted, it is more consistent with the experience of the accidents to which refractory patients in asylums

are exposed when fed by force, and as testified to by Drs. Choate and Brown, to infer that an injury did, in fact so occur to Mrs. Norton, of which, though largely contributing to it herself, she was not at the time wholly, if at all, conscious. In the absence of positive proof, therefore, that such injury had a criminal origin, I am constrained to form my judgment upon that exculpatory presumption which requires that, in the absence of contrary proof, the act shall be referred to the operation of the least guilty motive (*Wills Circ. Evid.*, p. 157.)

Under these principles it seems settled that charges like these now before me must be proved to the same degree if they can not be in the same manner as other charges of a similarly criminal character. Neither presumption nor inference of wrong arises merely from the custodial character of the relation subsisting between Mrs. Norton and Jane Eaton. To permit such a presumption of fact as that to arise, would be to accuse the State of placing its helpless citizens purposely in circumstances where they would be exposed to wrongs without remedy, and to oppression under the disguise of humanity.

It is impossible for me, therefore, under any rule of legal evidence, to cast out the testimony of an unimpeached witness like Jane Gordon substantially corroborating Jane Eaton in all essential facts. If Jane Gordon is to be believed, and I have no right to disbelieve her, her testimony gives a preponderance to the moral evidence in the case which negatives Mrs. Norton's charges. And if proofs of previous good character form part of a legitimate answer to such charges also, then they further give weight to the defence, under the well-established rule that "in forming a judgment of criminal intention, evidence that the party had pre-

viously borne a good character is often highly important, and if the case hangs in even balance should make it preponderate in his favor." (*Wills on Circ. Evid.* p. 164; *Reg. v. Frost*, *Gurney's Rep.* 749.)

And even were I to exclude character as having any weight in an issue of this kind—a step I could not take without violating every principle of justice, and exposing myself to the charge, both of ignorance as well as bias, I should still find myself confronted by a rule of judgment founded in natural equity, and which has constantly guided our Courts in deciding that “in order to justify the inference of guilt, the inculpatory facts must be incompatible with the innocence of the accused, and incapable of explanation upon any other reasonable hypothesis than that of his guilt.” (*Wills Cir. Evid.*, p. 188.)

If I have given greater latitude to the discussion of Mrs. Norton's testimony than the real merits of this investigation would seem to justify, it is because of the fact that it involves as before stated, an important point in the law of evidence which has not yet been settled by our Courts. Persons are every day discharged from our lunatic asylums as either cured or uncured, and taken back into the bosom of society to resume their civil relations to it. Assuming that their capacity to testify to recent facts is re-established, what, it may be asked, are the retrospective limits to that capacity? Does it go back indefinitely so as to include the period of their insanity, or shall we apply the maxim of *falsus in uno falsus in omnibus* to it?

We have seen in Mrs. Norton's case the juxtaposition of error with truth in the store-house of memory, the dividing line being that subjective one on the thither side of which we see as we feel, and we recollect from our belief rather than from self-demonstration.

Without entering, however, into any analysis of the opinions of alienist physicians touching those nervous centers whose diseases seriously disturb the memory, either partially or wholly, it is practically sufficient for the law to determine whether any physical and uncontradicted fact exists from which such a witness as Mrs. Norton can begin her testimony. If it does, she has a right to be heard; if it does not, then her evidence has no objective foundation on which to rest, and is amenable to the suspicion of self-deluding error.

The question, therefore, is not one of Mrs. Norton's veracity, which no one disputes, but whether she has produced that amount of proof which is required at law to substantiate her charges. Judged by all the above established rules of evidence, it must be conceded that she has failed to sustain her allegations.

Again, Mr. Norton charges among the other abuses to his wife, that of putting on a straight-jacket, and detaining her needlessly in bed. Now, I presume it will not be contended that, in the case of a lunatic, such an act is in itself an act of abuse. Restraint of insane patients has everywhere been regarded as, at times, necessary, and whether the method be by hands of attendants, or by mechanical appliances, the question of its fitness has always been considered one exclusively falling within the province of the attending physician. In the United States, the use of the camisole or straight-jacket has been regarded by experts as the simplest and least hurtful form of mechanical restraint, and under existing states of opinion it may be considered settled that the confining of a patient in one would not be considered in itself an abuse. Whether in a given instance it was put on too tight or too loose is a question of fact, not affecting the more general question of the system under which it was done—or the legal right to do

it. So, too, the detention of a weak insane patient in bed, for a longer or shorter time, is often a necessary part of their medical treatment, and a question whose determination is very properly left to their medical attendants. No layman has the requisite knowledge to draw any inference from it.

But whatever may be the absence of proof of any criminal wrong having been done to Mrs. Norton's throat, the circumstances connected with the fact of such an injury, coupled with want of knowledge of its existence by the physicians in charge of the Institution until a year after her removal, are incidents of asylum life which demand some official notice on my part. It can not be denied that much of the public sensitiveness relating to the possible grievances of the insane in asylums, arises, not from any personal distrust of the Boards of Managers or physicians of these institutions, both which generally represent gentlemen of the highest integrity, capacity and loyalty to their several trusts, but solely from the knowledge that the ultimate execution of the orders of these gentlemen, and, consequently, the ultimate results for good of such institutions depend practically upon the character and fidelity of attendants.

Looking at the powers of personal custody, control and moral influence over the insane which are delegated to these attendants; looking also at the necessary seclusion and privacy under which their services must be rendered, in order to be efficacious; and looking, lastly, at the character of these services so taxing to patience, endurance and charity, it is not surprising that the public should deem it impossible when relatives of an insane person can not endure his presence at home—that strangers should be kinder and more forbearing with him in the privacy of an asylum. It is idle to criticise

this as sheer ignorance ; it is wiser to confess that it is a feeling of human nature which we must respect, be cause born of our affections, while at the same time it is our duty to allay the distrust which so naturally springs from it, particularly when any accidents occur to the insane.

Disbelieving, however, in the theory of accidents, as popularly called, it has seemed to me that, with the acknowledged skill and experience of Jane Eaton, she should have prepared herself for such contingencies as might arise in the course of feeding a patient like Mrs. Norton. The law requires of all persons whose contract for personal services involves the elements of skill, that they should couple with this a degree of diligence proportioned to the difficulties of the task undertaken. Skill and diligence are indissolubly associated in law ; and while the absence of the former constitutes fraud, the absence of the latter constitutes negligence.

It is difficult to believe that the accident to Mrs. Norton's throat can have entirely escaped the notice of Jane Eaton. Such an accident, involving laceration of one-half of the throat, with subsequent acute inflammation, resulting in adhesions of the uvula to the *velum palati*—such an accident must have so altered the anatomical proportions of the parts as to have seriously impaired their functional activity. There must in consequence have been swelling with extreme tenderness on swallowing ; there must have been great difficulty of articulation, and manifest alteration in the tone of her voice. Some of these symptoms, if not all, must have been present for over a week. Dr. Sands says in his testimony that it would require two weeks for the throat to recover from them. Yet, during all this time, she does not appear to have made any complaint, and none of those about her, although feeding her, and con-

versing with her daily, discovered any indications of her injuries. This is, to say the least, very remarkable; and in seeking for an explanation of it, we are placed between two alternative propositions, for either Mrs. Norton was so insane that her sensibility was seriously blunted, and that she showed no suffering, or else Jane Eaton knew of the accident, and concealed it. It is not necessary, in order to constitute negligence on her part, that she should have known its extent. Nor was she to wait until Mrs. Norton revealed her injuries before taking cognizance of them officially. The civil and the common law alike place the helpless infant and the senseless lunatic upon a similar footing. Though neither complain, both may be the subjects of wrong. (*Itaque pati quis injuriam, etiamsi non sentiat, potest. Dig. 47, 10 1, §1.*)

When she saw blood issuing from Mrs. Norton's mouth, or saw Mrs. Norton swallowing or speaking with increased difficulty, those facts should have put her upon inquiry into their cause. The law placed her there for the purpose of anticipating harm to the insane, as well as checking it when it came.

There is no evidence, it is true, that she knew of the injury as such, but that does not exonerate her from the duty of constantly being on her guard, and of ascertaining daily, whether, in the midst of such struggles and resistance as Mrs. Norton made, no injury followed when a spoon was thrust into her mouth. Every intelligent nurse must know that in performing such duties as feeding a refractory patient with a spoon, some risk is incurred; and though an accident may happen without blame to an attendant, not to discover such accident affords a just ground for doubting either her skill or her vigilance. There may be wrong done by neglect of watchfulness as well as actual commission, since the result in either case may be similarly disastrous.

I do not think the managers of any asylum should allow an accident as serious as that to Mrs. Norton's throat to pass by, without some reprimand, at least, to the attendant, within whose field of duty such accident has occurred. Length of service alone, or even good character, should not diminish responsibility. And while there may be no just reason to condemn, where there is no positive evidence of guilt, there is always reason to admonish wherever there is ground even of a suspicion of negligence. Ordinary diligence is not sufficient in the case of the insane. The delicacy of the trust and the perilous contingencies which surround it, require the most unrelaxing vigilance. Any want of this constitutes at law a dereliction of duty.

I believe it is generally conceded by the superintendents of our asylums that even the oldest attendants require constant supervision. They believe this to be necessary, because it is in the nature of all services of such a character as theirs to render the execution of them after a while somewhat perfunctory and mechanical. This is the reason I find why many superintendents prefer to employ new attendants, rather than to take those who have grown old in the service of other asylums. I do not think the reason a logical one, since on general principles an experienced attendant of good character should be a safer one for the insane than a novice. The better reason, I fancy, is to be found in the fact that too much confidence is apt to be reposed in an old attendant merely from the length of service alone, and vigilance on the part of physicians is thus unconsciously permitted to be relaxed. The attendant speedily perceives this, and in proportion, as authority is conceded him without frequent interrogation as to its use, he gradually assumes more by the negative permission of being unchecked. In this way he ultimately

comes to see and to report only what he pleases in relation to the daily condition of the patients committed to his care. Now in order to obviate this tendency to exclusive reliance upon the attendant's caprice for a history of the patient's life in the asylum, the law of 1874 makes it the duty of every superintendent of an asylum "*to make entries from time to time of the mental state, bodily condition and medical treatment of such patient, together with the forms of restraint employed during the time such patient remains under his care.*" (Chap. 446 of 1874; Tit. 1, art. 1, sect. 4.)

If Jane Eaton had more fully communicated from time to time, the events belonging to Mrs. Norton's conduct, we might have had some clue to the date, and possibly such an explanation of the occurrences which led to the injuring of her throat, as would have rendered this investigation unnecessary. But as no such details appear upon the case book of the asylum, I must infer that no particular facts relating to Mrs. Norton were communicated by her to the physicians, or else they would have entered them there, in compliance with the provisions of the statute.

It seems to me, therefore, a proper time to suggest that more particular reports should be required from attendants daily—that they should be instructed to report fully, every occurrence in the conduct of their patients, as forming in fact a symptom of their disease and an exponent of their varying condition. It is not for them to judge what to tell or what to withhold in such matters. They should act only as mirrors and messengers, to represent the patient's condition to the physicians in charge.

The more we look at the sphere of duty and the personal jurisdiction over patients which must necessarily be entrusted to attendants, the more we become im-

pressed with the conviction that they of all other officers in an asylum hold the keys of its fortune in their hands. Whatever may be the skill, or diligence of physicians, however untiring may be the vigilance of managers or their visiting committees, all these may be practically neutralized at the very threshold of their wards by the individual infidelity of an attendant. Physicians can not always be present—neither can they well avoid visiting their patients at certain definite times, which ultimately become known, and preparations are accordingly made by attendants, both of patients and rooms, to have them seen and inspected. Nevertheless, the law of agency constructively assumes that every act done in those wards by an attendant is done by the managers of the institution. *Qui facit per alium facit per se.* The privity of contract subsists directly between the managers and the party who places a lunatic in their keeping, however many sub-agents these managers may employ. (*Thomas v. Winchester*, 2 *Selden*, 397. *Landon v. Humphrey*, 9 *Conn.* 209.)

It will be thus seen that a very heavy responsibility, often too heavy for the grade of intelligence on which it rests, falls upon attendants, and a still heavier responsibility upon the managers, as their sponsors and principals before the law. I am myself often amazed at the facility with which managers confide the delicate task of caring for the insane, to the persons I meet with in asylums as attendants. And since the grade of service in the labor market is generally determined by the salaries paid, it is our duty to first elevate the latter, if we hope to be able to elevate the former. The doctrine of retrenchment does not apply in any system of wise political economy to salaries paid for skilled labor. Whenever such labor is well done, the laborer is always

worthy of his hire. And even as a switchman or an engineer on a railroad, has a more immediate control over the safety of its passengers than its whole Board of Directors, so in an asylum, an unfaithful attendant may do a measure of harm which a whole Board of Managers can not prevent.

It would seem, therefore, that for the better protection, both of the good fame of asylums as well as of the safety of the insane committed to them, more details of the daily life and occurrences to patients should be entered upon the case-books of these institutions. This, indeed, is required by law, but I regret to say is not always fully complied with. Mrs. Norton's case shows us the need of these daily records, in the absence of which judicial inquiries are compelled to grope their way through the labyrinths of circumstantial evidence.

And in order also to prevent all possibility of negligence on the part of attendants, it seems desirable that a person in the nature of a supervisor of attendants should be employed in every large asylum. It should be his or her duty to pass the day in patrolling the wards, entering them unexpectedly; being present at meals, and seeing that the attendants do not relax in their discharge of duty. By such means there would be a constant supervision, which at present there is not, of both attendants as well as patients. This person would represent the eye of the physician, while the attendant would represent the hand. Physicians can not be constantly on their wards, nor with such an assistant to supervise their attendants, would they have any reason to doubt the faithful execution of their orders. The experiment above suggested has already been tried and with good success for the past year, in the male wards of the Willard Asylum. The patients find in such a person a friend, and as they believe a

protector; and the attendants find in him an adviser, and moral guide. I need not say what effect the knowledge that such a person is in the wards of an asylum, must have towards quieting public apprehension.*

There will always be suspicion of wrong doing and abuse of the insane, awakened by accidents like that which has befallen Mrs. Norton. It requires but a slight indulgence of the imagination to paint them in dark colors, or to believe them matters of habitual occurrence. Such statements, also, when made in a plausible manner wear a similitude of truth, which is apt to take captive our feelings, ere we have allowed reason to reflect upon the probability of their improbability.

One of the chief objects underlying the creation of my office, was that of re-assuring public confidence in the fidelity of those to whose care it has confided the insane, by securing early investigations of all cases of suspected wrong. In the present instance every opportunity has been given, both the relator and the respondents to make their allegations and to traverse them. And in arriving at the conclusions which I have, it has been a satisfaction to perceive that both parties have joined issue in a manner calculated to eliminate from the record all vindictive claims on the one hand, and all appearance of a technical defence on the other.

The respondents having also through the chairman of their committee, Mr. Beekman, anticipated my action in the premises by themselves soliciting suggestions tending to the more efficient administration of their trust, I deem it sufficient to announce my conclusions to them,

*This suggestion we heartily approve. Most of the Institutions in this country, have one or more supervisors of attendants. There are six in the Utica Asylum, one to each one hundred patients and their necessary attendants.—EDS.

believing that they will carry the same weight in their estimation as attaches to a legal promulgation. I shall issue no order, therefore, under the statute, provided the respondents shall, within the next sixty days, furnish me satisfactory evidence that they have carried the above suggestions into operation.

Judgment entered accordingly.

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Observations on the Brain of the Chacma Baboon.
Dr. Major in this article gives the results of a general and microscopic examination of the brain of the baboon as compared with that of man. That the entire brain

mass in man is greater than in the baboon, and is by far the richest in the number and complexity of the convolutions, i. e., in the extent of cortical substance, has already been shown. The question then arises, whether there are no histological differences between them, corresponding to the above mentioned and universally acknowledged variations. To elucidate this, a comparison has been made by examining, microscopically, corresponding portions of the brain in man and the baboon, and carefully noting the peculiarities of nerve element and connective tissue in case of each. The parts chosen for this comparison were the convolutions forming the vault of the hemispheres, especially the ascending frontal and parietal convolutions and the tips of the occipital lobes. The method adopted for displaying the brain tissue, is that so well known as Clark's method.

We will not attempt to give the results of the examination in detail, but pass at once to the author's conclusions.

In the brain of the Chacma and in man, the general character and appearance, i. e., the form and relative number of the cell element in the various layers, show no variation. In the *second* layer in the frontal and parietal regions the number and general size of the large nerve cells, which constitute what has been called the formation of the *cornu ammonis*, predominate in man. As showing the significance of this fact it is important to remember that the anterior portion of the hemispheres, where these larger cells are found, are the parts in which the highest functions of the organ are performed. "A careful study of the subject and a close comparison of numerous sections, have led me to the conclusion that in man, *the number of the cell processes, and, as a consequence the extent of their connections, is greater than in the baboon.*"

These remarks apply mainly to the large pyramidal bodies of the second layer. Although the author appreciates and states the difficulty, inherent in the subject, of forming a positive opinion, yet he presents his conclusions after due reflection and examination. A pertinent deduction from this state of appearances is made in the form of a question: "Do not the above facts render it probable that there is a relation between the functional activity of the nerve cells and the number and complexity of their anastomoses? and if so, is it not in accordance with what would be expected, that in man the arrangement should be most complex, and that, passing downwards in the scale of development, it should become more and more simple?"

The Plea of Insanity in Cases of Murder. In this article Dr. Yellowlees has given a history of the case of Tierney, which is substantially as follows: The prisoner was a miner, and had been employed for years in the same mine as his victim, and for months they had worked in the same heading. There had been disputes between them regarding their labor, and the overman of the pit had been called to settle their differences. On the day of the murder, the two men had been working together as usual, when Tierney suddenly left the pit. Soon after, some fellow workmen were attracted to the heading by groans. The man Campbell was found in a dying state, with two large stones lying upon his body, and with many fractures of the skull, evidently caused by blows from a collier's pick. Tierney was arrested the same evening at some distance from his home. After his arrest, and while in prison, he was examined, on two different occasions, by experts. Their report was, substantially, that his manner was peculiar, reserved and suspicious, and that

his replies to questions were slow and evasive; and though he was fully aware that he was charged with murder, he denied all knowledge of the crime, and appeared quite easy and indifferent as to his serious position. They were unable to discover any such mental aberration or defect as would justify them in asserting that the prisoner was insane at the time of the examinations.

Upon the trial it was proved that Tierney had been insane for a lengthened period about sixteen years before, after the death of a child, and that he had been removed to Ireland as a lunatic. Some of the facts regarding his insanity at that time, were also testified to: that he was in the habit of taking a razor to bed with him, and that he once burned all the clothes he could lay his hands on; also, that for the last fourteen years he was dull, stupid and unsociable, whereas before this illness he had been cheerful and sociable. The only testimony of importance as to his recent condition was given by the Catholic Priest: that he had known him for seven or eight years, and had always thought he was not altogether right in his mind, and accountable for his acts. He then gave some circumstances narrating peculiarities of manners, his sullenness, neglect to reply to questions, silently following him home on one occasion, and stated he had refused the prisoner the privileges of religion, because he did not consider him sane. He thought he was not able to perform a humane act, or to form a correct judgment; he told the neighbors not to blame his wife for leaving him as he considered him insane, and that she was in danger of her life.

The testimony of the experts, Drs. Yellowlees and Robertson, is quoted at some length. The former testified: "When I examined Tierney, I saw nothing that would enable me to certify that he was insane. From

what I have heard of his history, I believe that this amount of mental peculiarity may have lessened his power of self-control and self-regulation. I do not think that mental peculiarity was such as would make him the mere helpless instrument of his own impulses." Dr Robertson said: "The evidence I have heard corroborates the opinion, that there is, in this man, a certain mental deficiency consistent with sanity. I think this mental deficiency is referable to the previous attacks of insanity. Q. And that the recovery has not been complete? A. The restoration has not been complete—not so much with regard to his intellect—as the moral power of his mind. The Advocate-Depute: You mean that in consequence of that previous attack of insanity, his power of regulating his actions has been somewhat weakened, although his mind can still judge of the nature of his actions? A. That is exactly what I mean."

The pleas of counsel, and the charge of the judge, from which we quote, followed:

In summing up, Lord Ardmillan went carefully over all the evidence, especially as regarded the prisoner's mental condition; and instructed the jury as to what was required to establish the plea of insanity. He said: "Liability to sudden irritation, susceptibility to provocation, sullenness, ill-temper, silence, gloom—none of these would do. All these might exist without that deprivation of reason, that shattering of the powers of the mind, which constituted insanity. But, if there was a recurrence of the disease, depriving the man of the power of controlling his actions, impelling him irresistibly to commit certain actions, that excluded responsibility." He did not favor the suggestion of the prosecution, "that the man's control over his own mind might have been so weak as to deprive the act of that willfulness which would make it murder;" but indicated to the jury that they should find him either sane or insane, and give their verdict accordingly.

The jury after being out three-quarters of an hour, returned the verdict. "The jury unanimously find the

panel guilty of murder as libeled, but strongly recommend him to mercy on account of the excitement which might result from previous insanity." The prisoner was then sentenced to death, and listened to his doom with apparently stolid composure. The experts joined in a recommendation to mercy to the Home Secretary, on the ground that "while his mental condition did not entitle him to acquittal on the ground of insanity, yet it was such as should mitigate his punishment and save him from the extreme penalty of the law." After a special medical inquiry the sentence was commuted to penal servitude for life. From the comments upon this case we extract the following interesting remarks. After speaking of the often quoted definitions of insanity by the judges, he says:

Few now regard these definitions as truly representing our knowledge, and in his instructions to the jury in Tierney's case, Lord Ardmillan distinctly recognizes the power of controlling our acts to be as essential an element of sanity and responsibility as the knowledge of their nature and consequences.

The recognition, by the jury and by the Crown, of the existence of partial insanity, is a yet greater advance.

The law is slow to admit the fallacy and the danger of the rigid mathematical line, by which it would divide mankind into two classes only—the sane and the insane, the responsible and irresponsible. But, between these two classes, there is an intermediate multitude unrecognized by the law, who belong to neither class, while having affinities with both, and who show in most variable mixture traits both of sanity and insanity. These intermediates may do much, or perhaps all that legally sane men can do in the daily work of life, and their weakness may be so concealed by the routine of habit, or may be apparent on occasions so few and brief, that their neighbors scarcely observe it. It may be periodic, irregular, or constant in character; may have reference to special subjects or individuals; or may be evinced merely by oddity, irritability or obtuseness. Its degree and its expression may vary greatly, not only in different individuals, but in the same individual at different times; occasionally no weakness can be detected by the most careful observation, at other times it is ap-

parent to all. Yet the habitual daily lives of such people may not differ materially from those around them, and only the members of their own households, or those in daily contact with them, may recognize that they are not like other men.

It is these unfortunate intermediates who occasion so much confusion and uncertainty in our criminal courts, when the plea of insanity is urged. An intermediate at the criminal bar must be regarded as either sane or insane. Hence the testimony as to his mental condition is often conflicting, for it will depend on the aspect of his character which each witness has seen; and the sentence he receives must of necessity be unjust, for if he be deemed sane it will be too severe, and if he be deemed insane it will be too lenient.

This confusion and error must continue until the law recognizes that there is a condition of partial insanity, which may disturb, without destroying a man's appreciation of his acts and their consequences, and may lessen, without annulling, his power of self-control. This partial insanity must be held to imply a modified responsibility; and the evil deeds of such a man must entail a modified punishment.

The recognition of this doctrine in Tierney's case is most satisfactory. It has been recognized by Scottish criminal courts in at least two previous instances. The case of McFadyen in 1860, and of Milne in 1863—in both of which the capital sentence was commuted to penal servitude for life, on the ground of the prisoner's mental condition. [See Irvine's *Justiciary Reports*, vol. iii, p. 650; and vol. iv, p. 301. See, also, a valuable summary of such cases by Sheriff Spens in the *Journal of Jurisprudence*, for November, 1875.]

It was not surprising that lawyers should have held so tenaciously to their imaginary division and erroneous definitions. Some physicians have done much to justify them. They have been so acute that, with prophetic eye, they could detect insanity in its obscurest beginnings, and could evoke from the slenderest data the direst picture of irresponsible disease; or they have been so charitable that they were ready to rush to the rescue of a criminal when insanity was but whispered, and to throw over him, with due flourish of trumpets, the shield of their detective wisdom. Such conduct is most mischievous; it lessens the due weight of medical evidence, it obstructs justice by bringing the plea of insanity into contempt, and it too often gives pretext for the false and ignorant sneer that insanity can generally be proved, if there be money enough to prepare the defence.

But lawyers have a better reason for their tenacity than exceptional folly like this. To lower the general sense of responsibility for wrong-doing, would be a public calamity so grave, that it can not be too carefully guarded against; and this evil could not fail to result if the plea of insanity were too lightly accepted. On the other hand, what can tend more to lessen the public respect for justice, and the public confidence in its administration, than to see a man solemnly condemned as a criminal, and afterwards practically acquitted as a lunatic, by being sent to an asylum during Her Majesty's pleasure?

The acquittal of every criminal in whom any degree of mental defect could be discovered would be both unjust and dangerous, nor is the common excuse that confinement in an asylum is the same as perpetual imprisonment, at all sound. It is untrue as regards the individual, it is unsafe as regards other intermediates who might, by his conviction, have been deterred from similar crimes; and it is a violation of the public sense of justice, when a criminal escapes merited punishment.

The suggestions made in the interest of the prisoner by the Advocate-Depute, that Tierney's power of controlling his actions had been so weakened by the previous diseases, that the jury might possibly find him guilty of culpable homicide, rather than of willful murder, deserves attention, as one mode of solving the difficulty occasioned by intermediate criminals.

Perhaps it evades the difficulty, rather than solves it, unless, indeed, the principle were adopted that in every case the jury should consider the character and motives of the murderer, as well as the circumstances of the deed, and should specify, as in some other countries, the degree of his guilt. Whether this would not be in itself more equitable, and in every way more satisfactory, than the utterly uncertain and irregular way in which the Royal clemency is now dispensed, is not a question for this paper.

I have suggested, as a simple way of meeting the difficulty, that when the jury can not acquit a prisoner on the ground of insanity, and yet are satisfied that there is some mental defect, they should be able to find him "guilty, but *entitled* to mercy on account of his mental condition." This finding should save the prisoner from the extreme penalty due to his crime, whatever the crime may be, and should leave it entirely to the judge to determine what mitigation of punishment the mental condition demands.

We heartily commend the sound views of Dr. Yellowlees. It is too often lost sight of that the false and fictitious pleas of insanity, with their outrage on public morality and social law, are due quite as much to hired attorneys as to physicians.

The Hypodermic Injection of Morphia. Dr. Diarmid enumerates the disadvantages of opium and its alkaloids when administered by the mouth. These are nausea, dryness of mucous surfaces, loss of appetite, and constipation. The alkaloids may be altered or have their virtues impaired by the gastric secretion, or absorption may be delayed or entirely hindered and thus the amount appropriated from the same dose administered may greatly vary at different times. The advantages of its administration hypodermically—there is usually less disturbance to the system in the way of nausea, dryness, and often no tendency to the production of constipation. The dose can be definitely fixed; absorption is sure, as the material is placed immediately in the circulation; the effect is rapid, and pain is quickly relieved. A great advantage which is deemed of special importance in cases of insanity, is the fact that remedies can in this way be administered to those who persistently and successfully resist the ordinary method of giving them. Experience with hypodermics of morphia are recorded in cases of melancholia, acute, chronic and recurrent mania, and general paralysis and the following conclusions are drawn.

1. Of all single drugs, opium, or its alkaloid morphia, is the most potent and reliable hypnotic and sedative in the treatment of insanity.

2. Morphia, administered subcutaneously, is more rapid in its action and more powerful in its effects than when given by the mouth.

3. By hypodermic injection, not only irregularity in action dependent on gastric conditions, but digestive disorders incident to the stomachic exhibition of morphia are avoided.

4. The subcutaneous is the easiest method of giving opiates when a patient refuses to take medicine, and always the most exact.

5. Of various adjuncts to opiates, warm baths are the most useful.

6. Attacks of acute and recurrent mania, and paroxysms of excitement in chronic mania and dementia, may be cut short in the outset, or beneficially controlled, by morphia subcutaneously administered.

7. In such cases (*i. e.*, acute mania, &c.) the tongue becomes clearer, and the appetite, as a rule, improved by this treatment.

8. Morphia so administered has no marked tendency to cause constipation; and even in melancholia by alleviating the misery, and thus lessening the waste of nervous force, it predisposes to improvement in appetite and digestion.

9. Vomiting, the only unpleasant symptom apt to occur with the hypodermic treatment, is generally due to over-eating or digestive disorders existing previous to injection, and may, by care as to the time of administration, be avoided; and when it happens, is frequently beneficial rather than otherwise.

It must, however, be borne in mind, that many of the phenomena referred to are still *sub judice*, and that the opinions enunciated may require considerable modification as the result of further inquiries.

The article upon the *Provision for the Insane in the United States*, gives a succinct and in the main correct account of the establishment of the various asylums in this country, from the date of the earliest, the Pennsylvania Hospital 1751 to the present time. Credit is given to that greatest of American philanthropists and laborer in the cause of the insane, Miss Dix, for the noble and extraordinary part which she has taken. The data are drawn largely from the AMERICAN JOURNAL OF INSANITY, from Dr. Ray's address at Danville, and from Dr. Tuke's private correspondence.

The American Institutions and Superintendents are defended from the unjust and wholesale attack of the *Lancet* of November 13, 1875, by Dr. Bucknill in his article already presented in the October number of this JOURNAL.

A visit to an Insane Colony; is an account of a visit to the colony of Gheel in which the writer gives the impressions made upon his mind by the patients and the system. Dr. Deas finds much to commend in the colony as a home for the chronic insane, but at the same time expresses the opinion that there is a want of "immediate and constant watching of the cases, and of direction of the treatment by a medical man." "To found anything like a Gheel in this country would be utopian, impossible. Such a system could only *grow up* and that under the most exceptional circumstances."

Some Observations on General Paralysis. Dr. Ashe in his investigations into the causation of general paralysis calls attention to some interesting facts, among them, that but few cases of this form of disease are found in asylums of Ireland, a percentage far below that of the asylums of England or Scotland. The question is propounded whether this state of affairs can be accounted for on the ground of the difference in the kind of stimulants employed; the Irish using whisky largely, while the English and Scotch use almost exclusively malt liquors. A second query is also made as to the effect of the *Cocculus Indicus*, which is extensively employed as an adulteration of malt liquors. As substantiating this theory, Pereira is quoted, that this drug causes staggering, trembling, tetanic convulsions, and insensibility, and that it appears to act on the voluntary muscles. "Observation has shown its power of producing paralysis, when administered in too large

quantity. It seems to affect both the nervous and muscular systems." In further elucidation of the subject, the pathological conditions of general paralysis are given, especially the fatty degeneration of all the tissues, and a considerable removal of the earthy constituents of the bone, to both of which causes is due the tendency to fracture of the bony tissues. Now if any toxic agent by its presence in the system is able to produce these results it is claimed that there is a strong probability of its being the cause of the disease in question. Phosphorus is said to be the agent which in excess will produce the effects described. A case of poisoning by phosphorus is given in which the examination gave results corresponding to the above conditions. In the application of this theory of causation it is noted "that the victims—in the better classes at least, are generally men of more than average mental endowments; that is to say according to the views generally adopted, men of more highly phosphorised brains than usual. Again, as a rule, England feeds on a more highly phosphorised diet than Ireland. Where England consumes cereals, a phosphorised diet, Ireland consumes the potato, a non-phosphorised."

With a large experience in cases of general paralysis, we should give no credit to the views of Dr. Ashe as to the influence of the form, or adulteration of stimulants or phosphorus. In the United States there has been an insignificant amount of paresis in the west or the southwest where they live largely upon cereals, while in the State of New York where the diet is the same, the disease is common. On Ward's Island, in the Asylum for Men, of the city of New York, general paresis is more largely represented than in any other institution in this country, and that too among the Irish and whisky drinkers.

The article on Bethlem Royal Hospital, by Dr. Daniel Hack Tuke, contains a full account of the renowned Bedlam. There are many facts in the life of that institution presented, and for which we are indebted to the research of the author. The Hospital was established as a Priory of the Order of Bethlem in 1247. The first record of the insane being cared for in the Hospital occurs in 1403. The first medical governor was Helkins Crooke, in 1632. A description of the building, with its additions, from time to time, and of the treatment of the inmates, adds to the interest of the historical detail. The different methods of increasing the funds of the institution by asking alms of the citizens, and by exhibiting the unfortunate lunatics at a penny a head, show the necessitous condition of the Hospital. Reference is made to the results of the investigation of the committee of the House of Commons in 1815, which revealed the shocking barbarities to which the insane were then subjected. The lessons drawn from the history of Bedlam, is the necessity of having lunatic asylums open to periodical visitation.

Notes on the Reparative Power in Insanity, consists of a report of ten cases of injury, mostly of bony structures, in insane patients. The recoveries were in the main rapid, and considering the character of the patients, and the difficulties attending the treatment remarkably free from defect or deformities. It is incidentally mentioned, the Commissioners' Report for 1874, gives the record of twenty-six fractures, occurring in the Scotch Royal and Districts Asylums.

Dr. Yellowlees reports two more interesting trials for homicide, in which insanity was made the plea. The testimony of experts and the charge of the Judge in each case, fully define the positions assumed by the medical and legal authorities.

Under *Occasional Notes of the Quarter*, there is reported a speech made by Dr. J. C. Bucknill before the Rugby Temperance Association, followed by a correspondence between Dr. Bucknill and Dr. Clouston. The subject under discussion was, whether drunkenness is a vice or a disease. We quote from the remarks of the former :

He had heard the Revd. Mr. Venables speak with emphasis and enthusiasm of the part which members of his profession were taking in the crusade against intemperance, and he wished he could supplement it by saying that the members of his (Dr. Bucknill's) profession were taking a wise, patriotic, and useful part in the attack upon the great vice of our age and country. But he was afraid that just now members of his profession were taking hold of the stick by the wrong end, and were considering drunkenness not as a cause of disease, but as a disease in itself, which to his mind was a very great mistake. If drunkenness was a disease, it was not a vice, and could not be dealt with by education, and repression, and attempts to reform, but must be dealt with—as indeed many of his profession proposed to deal with it—by establishing hospitals for what they called the unfortunate drunkard. They said, “Poor fellow, he can't help it; he must be placed under medical treatment, and have all the comforts and luxuries he wants, until he is cured.” That was not his view of the case. He believed drunkenness to be a fruitful cause of disease, but not in itself a disease; and he looked upon inebriate asylums as an unfortunate attempt to coddle drunkenness, and patch up a wide and fruitful social mischief. Last year he was in America, and took a great interest in visiting the institutions for promotion of sobriety. He might mention that at the great Centennary he was in Boston, when a crowd of perhaps 150,000 persons went to Concord and Lexington, very fairly to congratulate themselves on the victories their grandfathers won over ours. He mixed with the crowd, and must say they were very disorderly—the police had to make themselves scarce—but he did not see, the whole of the day, in that vast crowd, one man the worse for liquor. He visited many of the American inebriate asylums, and he came to the conclusion that the gentlemen confined in them were generally rather proud of their position, and felt themselves interesting subjects of enquiry. As far as he could observe, they were there

under a very lazy and shameful pretense of curing a disease which did not exist, by remedies which were not applied. They had only to walk outside the walls of the institution to the nearest liquor-shop, and get as much liquor as they chose to buy, and they could take liquor into the asylum with them. A friend told him that he went in the Inebriate Asylum on Ward's Island, for New York, and visited the rooms of four of these unfortunate inebriates, every one of whom was enabled to offer him a choice of spirits. He was not surprised to hear that there was not a very friendly feeling in America between the teetotallers and the supporters of these inebriate asylums.

"He very earnestly hoped that the Rugby Association and the great one to which it was allied, would set their faces against the view of drunkenness as a disease. Habitual drunkenness is not a disease, though it causes all manners of diseases; but in itself it is a vice and should be treated as a vice."

Dr. Clouston's letter is written in support of the disease theory of drunkenness. We quote:

If I might be pardoned for presuming to criticise your views, I would say that in the first place you did not fairly represent the opinions of the medical profession when you told your Rugby audience that we all were considering drunkenness not as a cause of disease, but as a disease itself. I don't know any medical man who considers all drunkenness to be a disease, or the result of disease. Most of us do consider that there is a certain kind of drunkenness which is a disease, and not merely a vice. I think you imply that this vice is hereditary, and that it is disease-producing. I confess I can not myself in all cases distinguish what is vice and what is disease in my drunkard patients, any more than in many of my other insane patients. There seems to be much truth in the idea that disease, its seeds and potentiality, is the vice and sin of the body in many cases, and that the real moral vice and sin are, in those cases, its result and expression. I can not see that our considering drunkenness as a disease in certain cases, should in any way tend to the disuse of attempts to stop and cure it by "education, repression, and attempts to reform."

I so far agree with your views in the practical treatment of all such cases, that along with removing temptations to drinking, I

always tell the patient (the sinner—I beg your pardon,) that except he wishes to be cured, and tries his best to be cured, no power on earth will cure him. The fact is your “vice” is always present along with my “disease.” I yield that point; but I object to your ousting my disease-theory from the case altogether! My notion is much more in the direction of setting up Potany Bays for them, where a change of climate and life would combine with the absence of temptation and with hard work in the open air to alter their morbid constitutions. Then you can’t deny that half of them are fools from the beginning, and the other half become fools by their indulgences. They are usually (I mean my diseased drunkards) facile, sensual, irresolute liars, devoid of the rudiments of conscience, self-control, or true affection.

In reply Dr. Bucknill writes an extended letter. He first sustains his statement that members of our profession assert that intemperance is a disease, by quoting from papers read before the British Medical Association, in August last, and again by referring to the *declaration of principles* issued by the American Association for the Cure of Inebriates.

The Doctor recognizes a certain form of diseased drunkard, which is, from his description, a lunatic, but claims that this is not the kind of man he has met in the inebriate asylum. “The inebriates (which an abominable euphemism this is!)” whom I have seen in these asylums, have been as devoid of any real sign of mental infirmity, as any set of men I ever saw living together in common.”

The results of treatment are called to certify that inebriates are not our “diseased drunkards,” and especially the statistics of the Binghamton Inebriate Asylum, of one hundred and thirty-seven patients, discharged cured in one year, from a hospital containing less than eighty average population, while in comparison, at the New York State Lunatic Asylum with five hundred and eighty beds, there were only one hundred and eighty-two recoveries.

You would not expect to obtain such results as the above among diseased drunkards, whatever might be the mode of treatment; and to expect it from the system in vogue in inebriate asylums of indolent luxury and *laissez faire* would be in itself almost a sign of imbecility. Either the common run of inebriates you find in these special asylums are not diseased, or their cure is a philanthropic perversion of fact, or both. Probably both, and when philanthropy sows falsehood broadcast, the furrow produces no crop of annual weeds, but deep rhizomes of untruth, which must be grubbed up with infinite pains and labor.

The position in which the Superintendents of the Inebriate Asylums of this country have assumed, as teachers of the world and, notably their claims made before the committee of the House of Commons has justly exposed them to the criticism they here receive, in the following words.

Up to this very moment the men who most loudly demand a change in our law largely affecting the liberty of the subject point to the statistics of success of the American Inebriate Asylums for the cure of drunkenness as their most weighty argument. Moreover, the Superintendents of the American Inebriate Asylums have taken upon themselves a peculiar position as our instructors. They have banded themselves into an association for the propagandism of their dogma that "Intemperance is a Disease;" and this association sent a deputation of two of its most prominent members to inform and instruct our legislators respecting the great advantages which we might derive from imitating their proceedings. I think, therefore, that I am perfectly justified in making their practice and their public statements the butt of my criticism.

But when I see the American inebriate doctors deputed to teach us how to change our laws, vaunting the absolute cure of thirty-four per cent. of their diseased drunkards, and pushing their creed and their system with an unblushing propagandism, and even challenging our real psychiatry with damaging comparisons; when some of these institutions, moreover, are supported by public funds, and the gentlemen making these statements are public functionaries, then the position seems to be entirely changed, and anyone and everyone seems to have the right to enquire into the credibility of such statements.

It does not, therefore, seem absurd for me to mention, on the authority of Dr. Macdonald, of the New York City Lunatic Asylum, situated in Ward's Island, that on the occasion of a visit to the City Inebriate Asylum, situate in the same island, he went into the rooms of four of the inmates, and was by each of them offered the choice of spirits.

Nor does it seem absurd for me to state that when I visited the Washington Union for Inebriates at Boston, I was told by Mr. Lawrence, the resident superintendent, that his chief reliance, as a curative measure, was placed in earnest religious exercises, accompanied by temperance songs, supplemented occasionally with pills of cayenne pepper; that his patients had the run of the city, and that he had no means of preventing them from getting drunk out of doors beyond their faithfulness to their word of honor. Nor was I surprised when I met with a man at Binghamton who told me that he had been under treatment at this Washington Home, and that, notwithstanding the religious exercises and the word of honor, he and most of the other patients were in the constant habit of getting whisky at a snug spirit store close to the asylum.

Nor does it seem absurd to me to declare that at the great model Inebriate Asylum at Binghamton belonging to the State of New York, I was assured, not by one patient but by many, that they habitually got as much whisky as they liked by simply walking down to the outskirts of the town, just beyond their own grounds; and that the institution was good for nothing, except as "a place to pick up in"—that is, to recover after a debauch. Nor was I surprised to hear from Dr. Congdon, who has replaced Dr. Dodge as the superintendent of this institution, that he used no medical nor moral treatment. Dr. Gray, of Utica; Dr. Orton, of Binghamton, and another governor of the institution, whose name I forgot, [Dr. Wey,] heard Dr. Congdon make the admissions to me, and I was told at the time that the impression made upon them was so strong that Dr. Congdon's reign would probably be a short one; which has proved to be the case.

Is it, therefore, absurd to draw the inference that if thirty-four per cent. of the inmates of such institutions are cured by a residence of a few months, without any real treatment, medical or moral, they have not been the subjects of disease of the brain, nor such patients as we mean when we speak of diseased or insane drunkards? That they may have been drunkards, and they may have "picked up" and left the institution sober, may perhaps be conceded; but that they have been admitted with one of the most

intractable and persistent disorders of the nervous system, and have been cured of it without the use of discipline or treatment by leading for a brief time a life of indolent luxury, under a cloud of constant tobacco smoke, with cards and billiards, and only ostensible abstinence from whisky, this, if true, would be marvellous.

I must make an exception with regard to the Franklin Home for the *Reform* of Inebriates at Philadelphia, under the charge of Dr. Harris. This was the only place I saw in America where honest, earnest work was being done, not for the cure but for the reform of drunkards. Dr. Harris repudiates the idea of curing that which is not a disease, and his system is widely different from the no-system which I remarked elsewhere.

Then follow some remarks regarding the distinction necessary to be made between vice and disease and the difficulty that frequently exists in making it; again the relation which drink bears in the production of insanity. A comparison, so far as the material was at hand, of the cases of insanity attributed to the influence of intemperance in various asylums in different countries reveals an extraordinary amount of difference in the part played by drink in the production of insanity in different populations.

This subject is continued in the October number of the *JOURNAL*, in the letter of Dr. Peddie to Dr. Bucknill, and a reply to the same. This will probably finish a discussion in which much light has been shed upon the subject of the relation of drink to physical disease and consequent mental disorder, and the combatants have defined their position in a way which clears the matter of much rubbish and brings them definitely to the real issue. This issue in our own country has been met, and we fully believe that the advocates of intemperance as a disease are now making little or no progress in gaining converts to their theory. We are glad that so able a pen as Dr. Bucknill's has been brought to bear upon the important social question. His large

experience and observation enable him to use the logic of facts with telling effect, in the discussion of this question.

The Journal of Psychological Medicine and Mental Pathology, New Series.

We gladly welcome this *Journal* to its former field of labor, after a suspension of twelve years. It was first established in 1847, by Prof. Forbes Winslow, the distinguished author and father of the present editor, and was conducted by him for sixteen years, till 1863. The new series resembles the first in size, and in typographical appearance, and retains many of its most interesting features. Its articles are of a practical character, and are contributed largely by those of extensive experience in the care and treatment of the insane, as Dr. W. A. F. Browne, Ex-Commissioner in Lunacy, for Scotland, Dr. Crichton Browne, Dr. W. H. O. Sankey, Dr. Briere de Boismont, and others.

The new series is published semi-annually, in April and October, and was begun in April, 1875. The four numbers are now before us. We quote from the October number, 1876—an article upon “Mechanical Restraint.” During the year just past, American Asylums and their officers have been severely criticised for their use of restraint, and for even asserting their belief in its efficacy, and value when properly and judiciously employed. The whole subject has been fully discussed and the arguments pro and con often presented. We have here, however, English authority questioning the propriety of absolute non restraint, and we apply this to mechanical means, as non restraint unqualified, can not properly be used while patients are forcibly restrained by human hands, or a system of seclusion. While admiring the zeal which our English brethren

have manifested, we think it should be tempered with moderation so far as not to confound use with abuse. Of the abuse of mechanical restraint, we have no doubt and we heartily join with Dr. Bucknill in condemning its indiscriminate and improper application. We favor only the minimum of restraint, and maintain that it should never be used except under the direction of a physician. While manual restraint by attendants, may be all that is required or proper during brief paroxysms or when resistance is moderate, in cases where repression is necessary, for hours together, to prevent an individual from injuring himself or others, our experience has shown that a camisole or a waist band is less irritating, less provocative of resistance, and less humiliating, and certainly less likely to result in injury than a long struggle with attendants.

ART. VIII. *Mechanical Restraint in the Management or Treatment of the Insane.* By F. MURCHISON, M. A., M. B., Edin. Assistant Physician, Crichton Royal Institution, Dumfries, N. B. Read to Scotch Branch Psychological Association, Edinburgh, November 14, 1875.

A medical superintendent related to me the following anecdote: A determined suicide was brought to him by her father, a bluff country practitioner, who said: "I place this patient in your hands. She will cut her throat, hang, drown, or destroy herself, if she can. I care nothing about your restraint or non-restraint, but I shall require her from you safe and sound, whether sane or not."

The extreme opinions at one time prevalent in Britain, adverse to restraint, have never obtained the same countenance or favor in France, America, &c., where mechanical contrivances still form a part of treatment. Even in this country the conflict between the dictates of professional duty and humanitarian sentimentalism is less keen than it was some years ago. The bugbear dread of public criticism has faded in cases where life or limb is known to be in danger; but would it now be prudent and justifiable to employ such coercion, where the danger is merely *suspected, inferred, or verbally* threatened by the patient?

The following cases may illustrate this difficulty. They have all occurred since the reign of the non-restraint creed became absolute, and are all derived either from my own practice, or the experience of a medical friend in a Public Asylum.

1. M. C., a healthy robust maniac, had been permitted to retire to bed, on the recommendation of the Medical Superintendent, that rest and horizontality should be encouraged. He was almost immediately afterwards called to see her, in consequence of her having wounded herself; and found her in bed, laughing and joking, with a large deep wound extending from about the middle of Poupart's ligament for about four or five inches towards the umbilicus. A triangular flap was folded laterally towards the ileum, the lower edge of the omentum loaded with fat, and several folds of the intestine were exposed. She had detached a pair of scissors from the waistband of the attendant, and inflicted the injury with this instrument. There was inconsiderable hæmorrhage, as neither the epigastric nor any large artery had been divided. The patient recovered completely from the effects of the wound, and from her mental derangement.

2. A clergyman, laboring under suicidal mania and the delusion that he was suffering from a syphilitic sore throat, was requested by the attendant to say grace at a table where ten other persons were standing around. The attendant had (as is common in Scotland) shut his eyes during the benediction, and had laid his carving-knife for a moment on the table. The clergyman, seeing the opportunity, seized the knife and inflicted a frightful gash on his throat, dividing the trachea and the surrounding tissues, without, however, severing the large blood vessels. After being sustained for some time by artificial alimentation, he died.

3. A robust mischievous imbecile, known to be disposed to injure his skin, but not suspected of eroticism, retired to bed in good health. He was found in the morning with a frightful mutilation of the penis, scrotum, and testes. He had inflicted the wounds with a sharp portion of the chamber-utensil, which he had broken. The hæmorrhage was excessive; but he seemed to enjoy the consternation of the attendants, and made a joke of the whole affair. Castration was complete, but the eunuch lived for many years after this event.

4. A religious melancholic, with a suspected but not well-marked tendency to self-mutilation or suicide, slept in a dormitory with other patients in M— Asylum. It was discovered one morning that he had, in the night, quietly gouged out his right

eye, and left it hanging by a few injured tissues outside its socket. The eyeball was removed, and the patient made an excellent recovery.

5. M. E. B., an attenuated religious melancholic, and a most determined suicide, with marks of injuries inflicted with a view to self-destruction, very recently admitted into the C— Asylum, was given in charge of a trustworthy attendant, who was instructed to watch her carefully. An hour and a half after her admission, I was hurriedly sent for, to attend to an injury which she had inflicted on her right eye. I found the organ removed from its place, and lying on the cheek, bleeding and totally disorganized and collapsed. After some little hesitation as to the propriety of severing the lacerated tissues that still suspended the alleged offending and now sufficiently punished eyeball, I returned it to its place, where it has ever since remained, sightless, and much reduced in size; and if not “a thing of beauty,” at any rate a credit to the *vis medicatrix nature*, or to a weak solution of carbolic acid, with which it and the surrounding injured structures were daily dressed.

A consideration of these cases, which a more extended experience than mine could doubtless easily supplement, entitles me to question the propriety of the total abolition of mechanical restraint, and of the means which have, from humane, but I think erroneous considerations, been substituted; and emboldens me to advocate its use for securing the safety of such patients as are bent upon self-mutilation or destruction. Extremes are known to be hurtful in every line of life, but, strange to say, the utmost amount of liberty is, if not already granted, strenuously advocated for our asylums; and the cry, emanating chiefly from those who are ignorant of the difficulties to be encountered in the discipline and management of the insane, against locked doors, strait-waistcoats, bolts, bars, in short, prohibitory means of any kind, even if the patient goes to the extent of tearing himself or his neighbors to shreds, is now almost universal, although patients themselves sometimes petition for restraint. Indeed, in some places, where accidents are not unfrequent, and suicides not quite unknown, all similar provisions are ignored. To those who, by experience, understand the many and great difficulties of managing a class of people with intractable and wantonly destructive propensities, this method of “non-restraint” treatment appears inadequate to cope with a morbid determination to injure or kill.

Notwithstanding the general appeal for forbearance, freedom, and do-nothingism, it will ever remain evident, that cases appar-

ently requiring restraint, a moderate and harmless use of mechanical contrivances to secure that end will be less hurtful to the patient, and more likely to guide him in safety through a war of mental elements, than a living force that may become too lax or too harsh in its exercise. It is next to impossible to watch some patients with sufficient assiduity to prevent their carrying out their dangerous designs upon themselves or others. Their intention is so fixed, their determination so strong, and their vigilance for "opportunities" so sleepless, that whenever an attendant's eye or hand is removed from them, they injure or destroy whatever may excite their anger. I knew a lady so determined upon self-destruction, and so totally regardless of all moral suasion, that she tried to swallow pins, nails, and such other hurtful articles, and to set fire to her clothes; nor could she resist the temptation of asking me for a knife to cut her throat. A moderate use of innocent restraint saved her life, as doubtless its absence would have led to new attempts at destruction. A second lady, to my knowledge, set herself on fire in a house where she had all the freedom that the enthusiasts for "non-restraint" would have heartily admired, and had burned her body so frightfully that she lived only for a few hours. Numerous examples could be adduced to show that death and other serious evils have frequently resulted from the non-adoption of gentle and humane mechanical contrivances to prevent a patient from executing his wild designs. Even the "camisole" and similar instrumental expedients have failed to secure safety, a result demonstrating at once the desperate character of the cases to be dealt with, how dangerous the struggles which must ensue when manual restraint is trusted to, and how ineffectual must often prove even the humanely directed exertions of a trustworthy attendant. When such means are resorted to in private houses, difficulties must be greatly multiplied. Unenlightened benevolence may probably blame me when I suggest a linen inanimate strait-waistcoat as being preferable to the muscular force of two or three strong, rough, and certainly not passionless attendants, in cases similar to those cited, or when a patient, surgically treated, is restless and refractory; when for an excited and dangerous lunatic I prefer a padded room to one in which he can injure himself or break my head. Liberty to a person not entirely delirious or demented is, no doubt, dear, and should never be denied when experience has proved its advantages; but when it tends to the patient's or his neighbor's injury or destruction, it assuredly becomes a duty to curtail it to the extent and in the manner that can be proved to be the most desirable.

It is my firm conviction that the absence of mechanical restraint is the cause of the great majority of accidents, and of many of the suicides that take place in asylums; and that at the present day a diminution of the freedom of the patient, by restraint or seclusion, would minimise, and perhaps abolish, these undesirable items in the statistics of asylums. Coercion from the very beginning, in suicidal cases of grave import, would doubtless save life, and much anxiety to those in charge. In such cases it should, I think, be unhesitatingly adopted, and continued as long as the morbid state of the patient necessitates such a measure. The cases requiring its continued adoption form only a small percentage of mental ailments, and they usually improve under judicious treatment. The great object is to save the patient from his own excitement and violence; and any course that secures this, in a harmless way, seems justifiable and right, however much it may be against the dictates of those whose sympathies will not allow them to see any virtue in it. Entertaining the opinions I express, I should not hesitate to recommend mechanical restraint in cases of acute mania when the patient is not merely incited to destroy all around, but may exhaust his strength, engender disease, and thus precipitate that fatuity which so frequently follows such paroxysms. In addition, it might conveniently be resorted to, as an instrument of harmless reproof, in cases where "temper" and original wickedness, plus insanity, disregard moral discipline, and defy constituted authority.

Quis Custodiet Custodes? We give, from the same number, extracts from an article with the above heading, which recounts the homicides and injuries inflicted by persons of questionable mental condition, both within and without asylums, during the short period of five months, as recorded in a limited number of periodical publications. This record conveys a well deserved rebuke to those who advocate not only the disuse of bolts and locks and entire freedom in going and coming, but advance other utopian ideas inconsistent with experience and sound judgment. There is also a broad hint that some form of restraint, not only in the way of locked doors, but even of a personal character might

have been useful if they were not actually demanded by the circumstances of these cases.

For nearly a quarter of a century I lived amid a densely crowded population, where the maelstroms created by human passion, prejudice, poverty, whirled incessantly around, regurgitated into the asylum which I superintended the wrecks, the refuse, the debris which it had engulfed, and which, upon examination, impressed upon me the conviction that the consequences of mental diseases in the present very much resembled those which had been described in former ages. I am now removed to a considerable distance from the central heart of the circulation of the Empire, but am neither inaccessible nor inattentive to the pulsations which indicate the transmission of nutritive or enfeebling influences to the extremities of our body-politic. In marking these my only Sphygmograph, the public press, which I readily confess is in no degree more trustworthy than the instrument the name of which I have borrowed, indicating little more than that something is wrong, leaving the discovery of what that something is to other and collateral means of exploration. There are too often contradictory tracings, and this is the text of my present paper. It is necessary, however, to premise that my "Public Press" does not embrace such a catena of publications as may be found even in a provincial reading-room; that it consists of nothing more than one weekly medical journal, one London weekly, and one local daily newspaper; and, lastly, that these sources of information, as they are assuredly not exhaustive, are as certainly not exhausted, so that the materials are, in all probability, less numerous and less pertinent than those which are passed by unnoticed. From such authorities I have learned that my opinion as to the immutability or indelibility of forms of derangement and degeneration were altogether erroneous and untenable; that the type of mental disease had changed; that the *Mania Furibunda* described by former psychologists, and sculptured by Cibber, was antiquated and forgotten; that there have been no pyromaniacs since Jonathan Martin, no insane parricides since Dodds, no insane regicides since Oxford, no homicides since the martyrdom of Myer and Lutwidge; that walls have been leveled, bolts and bars melted into ploughshares, and that seclusion in an asylum was now converted into sport in Arcadia. Now, I am not old nor soured enough to snarl sceptically at all this, to doubt that the reign of humanity is twice blessed, or to set any limits to the powers of nature or of moral

medicine. But I am sadly perplexed when there comes, through precisely the same channels, the hope-inspiring and the blood-stained streams almost mingling together, the following facts:— 1. That within a few months an attendant was killed by a lunatic in Leicester Asylum; 2. That one lunatic killed another in Durham County Asylum; 3. That a lunatic was killed in Greenock Poor-house Asylum, and that an attendant was accused of killing him; and 4, that a lunatic was reported to have had his ribs fractured, &c., by an attendant in Northwoods Asylum, both being intoxicated at the time, the assailant being subsequently committed, tried, and sentenced in the mitigated penalties of a fine of 15*l.* and two months imprisonment. Now, my object is not to attribute the slightest degree of culpability, malpractice, or misadventure to any one connected with the above deplorable accidents, but simply to show that there must have been struggle, violence, fury, ferocity previous to the death blow. Nor, in adverting to one hundred and sixty instances of accidents, including several suicides, stated to have occurred within the safe and sacred precincts of asylums in Scotland in 1874–75, in the Annual Report of the Commissioners—which is the only record of such important data which we know of—would we breathe or harbor the suspicion that there was either negligence, or carelessness, or inadvertence, or the absence of such precautions as might have prevented fractures and blows and burns, as our only wish is to direct attention to the sad evidence afforded that the Millennium has not yet arrived in Bedlam.

In a report, from a person rather pedantically designated “the Lancet Commissioner,” on Brookwood Asylum, in No. 23 of the *Lancet* (4th December 1875,) there is a great deal of well-intended but certainly illogical commendation of the minimisation of seclusion even as a means of treatment. I have always conceived that the morbid as well as the immature mind could be governed and guided to self-control and obedience to recognized rules by a certain amount of restriction, solitude, privations curatively imposed: that the insane should be treated and talked to as if they were insane; that it is of vast importance to convince them that they are in a lunatic asylum; that they are sufferers from a grievous disease; that all around is intended to be remedial; that seclusion is not penal, but protective against light, sounds, provocations, violence, and their own passions. There are likewise in the same article many romantic descriptions of embellishments, flower-stands, pianos, wall-paper, floorcloth, and color. The reporter must infallibly have been a disciple of the school of Dr. Ponza of Ales-

sandria, Piedmont, and F. Secchi of Rome, who, after experimentation of the immediate effects of the solar ray and colored lights, have reached the conclusion that blue and violet rays are calmative, red exciting, &c.; and that curative effects have been obtained by placing patients in chambers differently colored, according to the form or degree of the malady, and to the object desired. It is very doubtful whether such æsthetical adjuncts can enter into the Southern Saxon mind as a means of cure, tranquilization, or even pleasure; but as we do not know the effect of beauty on the uncultivated, such provisions can not be regarded as supererogatory. But how utterly impotent such instruments prove, even when associated with the skill and sympathy of an experienced physician, in appealing to the savage, sanguinary, almost inaccessible nature of certain classes of lunatics, is most painfully exemplified by an occurrence which took place in that very asylum, amidst all these flowers and signs of humanity. The accident is thus stated in the *Journal of the British Medical Association* of 29th January 1876: "As Dr. Brushfield, medical superintendent of the Brookwood Asylum, was medically attending to a male patient in one of the wards of the asylum on Saturday morning, the latter suddenly seized an earthen vessel, and with it dealt the doctor a running fire of terrific blows on the head. Dr. Brushfield fell to the ground, but the lunatic, with savage fury, continued his attack. Fortunately, two of the attendants, alarmed by the noise, entered the ward. They immediately sprang on the madman, and at once disarmed and secured him. Dr. Brushfield has received several scalp-wounds, and lies in a condition of great suffering and danger."

Another pleasing because portentous and prophetic murmur has reached me, that the great majority of the insane are to be uncloistered; that they have become, or been rendered by wise and judicious management, so teachable and tractable, so gentle and self-guiding, that asylums will be dispensed with, or converted into hospitals for the small minority of acute cases of nervous disease which now occur, or into comfortable club-houses for dipsomaniaes; that Ghheels and agricultural colonies are to be created in every county; that, emancipated from the thralldom of special arrangements or special physicians, they will be committed to the governance and muscular therapeutics of honest "hewers of wood and drawers of water," or to the superintendence of medical practitioners untrammelled by previous training or experience, and through such instrumentality assume the position of ornamental loiterers in our waysides and commons, or of prudent and produc-

tive laborers and artisans, as members of the industrious classes. It has even been rumored, that in certain districts whole groups of these David Gellatlys and Madge Wildfires have been gathered together, either as inoffensive disturbers, or co-operatives in the common weal. It would be invidious to cast the shadow of doubt upon the brilliant and beautiful picture thus presented. Nor would I introduce a demurrer as to the difficulties or dangers of imperfect guardianship, of economical speculation, of nullifidian treatment, which have been suggested by the cautious, the circumspect, or the timid—not even a caveat as to the unavoidable accidents, the escapades, the offenses to public order and decency, which characterize the strong as well as the simple-minded. The only interest which I desire to attach to the subject is as to the influence which must be exercised by the presence of many (or even by any) lunatics mingling free and unfettered and uncontrolled in society, upon the safety, comfort, well-being, even moral health of its sane members. In order to approximate to an estimate of the nature, though not of the extent, of this influence, I have not, except in one or two cases, sought for information as to the fate or fortunes of lunatics who, though living among their fellow-men, have been recognized legally as such, who are superintended or subsidised by public boards or other constituted authorities, or who have passed the ordeal of previous confinement in an asylum; but have limited my inquiries to such individuals as have revealed their condition exclusively by the act or acts which have drawn public attention to their history. My course has consisted in extracting the notices of all such acts contained in the newspapers previously enumerated since the 24th of October, 1875, to the present day, (25th of March, 1876,) and I now submit the epitomised results of my observations.

Then follow the particulars of forty-nine cases, including suicides, homicides, deaths from want and neglect, violent homicidal attacks, injuries inflicted upon self and others, and conduct such as brought them under legal supervision and control. These are classified under the various forms of insanity, cases of delirium, from rum and disease, and those occupying debatable ground between marked eccentricity and insanity.

From an article in the *British and Foreign Medical-Chirurgical Review*, for July, 1876, entitled, "Lunacy

in the United States," we make a further extract upon the subject of restraint.

Next to moral and manual means indispensable in bringing the insane under either moral or hygienic influences is mechanical restraint. One and all of American alienists concur in believing that coercion is a powerful adjuvant, in itself a moral instrument, and indirectly required in the application of medical remedies for the restoration of bodily health and for the preservation of life. This general accordance is confirmed by a vote of the Medical Association, in 1874. While these scientific men are unanimous as to the propriety or expediency or usefulness of physical restraint, they differ widely as to the reasons and circumstances demanding its application, and as to the extent to which it may be carried, many of its advocates scarcely resorting to it at all, and others resting upon it as a frequent and potent aid. This creed does not harmonize with that formerly universal in Britain, but, as was shown in an article in this *Journal* lately, now accepted with a less rigid and more relaxed orthodoxy, and met in some quarters with scepticism. Non-restraint became the watchword of a party, or of a persecuting party which denounced all who rejected allegiance, all who preferred a thong to a threat, the embrace of a camisole to the hug of rough and determined hands, as cruel, unconscientious, and as incapable of appreciating the principles of medicine or the dictates of humanity; therefore we dislike it. That such a resource can be dispensed with is perfectly true, but so can medicine, as is done by certain nullifidian physicians, whose practice, if not their profession, is limited to fresh air, good food, and amusement run mad; but what we chiefly object to is the denial of fellowship and sincerity to those who differ from us, the reluctance to admit that they should pursue a mode of practice inconsistent with our own, and that they are not actuated by the same high motives and by the results of an experience as wide as our own, though differently interpreted. The calm, dignified, pacific rebuke with which American alienists have met such insinuations should be compared with the harsh insinuations which are still directed against them. We lately conversed with a superintendent who, led, perhaps awed, by the example of Conolly, never resorted to restraint, whose career has nearly reached that crisis where our professional as well as our personal errors come to be reviewed and repented of, and whose concluding sentence was—"Three things I bitterly regret—1st, that I trusted

too little to stimulants; 2d, too little to opium; 3, too little to restraint."

In the same article, which is an extended review of the history and progress of the care of the insane in the United States, from the Colonial times to the present, among other subjects, that of labor receives attention, as follows:

It has been supposed that the absence of due labor involves the presence of undue restraint.

Dr. Ray, in 1865, appreciates the importance of occupation to the health and happiness and recovery of his patients; his experience has convinced him that although of great moral it is of little pecuniary benefit; that by multiplying attendants out-of-door labor can be indefinitely extended, although numerous patients are unfitted by habit, trade, illness or exhaustion for such exertions, and others prefer or are best capacitated for household duties and handicrafts, and that he succeeded in bringing about one-fifth of the community under his charge within the operation of this powerful agent.

Dr. Gray, New York, calculates that, after making the required deductions for age, sex, illness, and incompatibility, with the form or stage of the mental disease, his industrial corps would amount to twenty-five per cent., although his annual reports reduce the proportion of actual workers to eighteen per cent. In the institution over which he presides it is asserted that workshops and schools initiated by his predecessor, Dr. Brigham, have been abandoned. Dr. Wilbur, who has advanced this statement, has recently visited this country for the purpose of reporting to the Board of State Charities the results of his examination of a number of British asylums, and produces rather a sensational effect by placing the sixty-eight per cent. of patients employed of the nine thousand seven hundred and eighty-six seen in contradistinction to the happy idleness which he attributes to the inmates of similar hospitals in his native country; by encomiasing the tranquility, docility, and contentment of the inmates, the beauty and ornamentation of their abodes, and the non-existence of physical appliances. The Doctor's facts are of course inexpugnable, but his impressions are derived from a few selected, celebrated establishments, and are contemplated through an atmosphere so *couleur de rose* than an Englishman standing by his side, but embracing

the whole field of vision, would scarcely recognize the picture, and might be inclined to look forward to such havens of rest as a premium upon folly and a solatium for all the ills that life is heir to. That all lunatics may be after a fashion engaged in work, can at times be taken into the open air, can be indulged in an almost unlimited amount of freedom, has been demonstrated; but the inquiry arises, is such latitude beneficial? Restrictions to the sane mind prove necessary moral checks, active exertion proves a bane as well as a blessing in different cases, and it should be recollected that Guislain condemned more emphatically than the Americans toil and travail and muscular activity as inducing hyperæmia in all the tissues, a phraseology which would be now rendered into nervous excitement. When it is considered that the theme of almost all physicians and philosophers in the States have been that insanity is a bodily disease, that it owes its origin in a far larger proportion of cases to physical than to moral causes, that no case of mental disease can be examined where organic changes are not discovered, and no necropsy performed without the detection of conspicuous structural degeneration, it can readily be understood that the therapeutic means of restoration adopted have been very numerous.

This is quite a different estimate from that Dr. Wilbur puts on his own observations, in the pamphlet printed by the State Board of Charities, and to which reference is made. The only comment we have to make is, that if Dr. Wilbur had practical familiarity with the subject of insanity and any adequate personal knowledge of such institutions in his own country, he might not have seen such wonderful things abroad. There could then have been no possible excuse for his misstatement, that in the Asylum at Utica, the workshops established by Dr. Brigham, have been in the main abandoned, while the truth is, that they, being found entirely inadequate, have been increased more than four-fold in size and efficiency.

The whole article is an interesting resumé of the subject of which it treats. It is evidently from the pen of one entirely familiar without the facts and the

principles, and who writes without prejudice. In concluding the review of asylum work in America he says:

In tracing the history of American psychiatries we are constrained to regard them, not as offshoots or branches from our parent stem, but as a part and parcel of ourselves. Brethren inhabiting an adjacent region somewhat different in climate, natural productions, and social polity, but who have passed through similar courses, cataclysms, tedious and tiresome labors and lustrations; who have participated in our errors, excellences, principles, and prejudices; who have met with the same obstacles, epochs, resting-places in their progress, and who have reached, not perhaps a strict community of sentiment, but a close approximation in the estimate of the grand interests at stake.

He also speaks of the insane in various periods in the United States, and concludes with an analysis of the laws in operation in the different States of the Union.

REPORTS OF AMERICAN ASYLUMS, 1875-1876.

NEW YORK.—*Annual Report of the New York City Lunatic Asylum, (Blackwell's Island,)* 1875. Dr. R. L. PARSONS.

There were in the Asylum, at date of last report, 1,165 patients. Admitted since, 412. Total, 1,577. Discharged recovered, 127. Improved, 52. Unimproved, 60. Improper subjects, 7. Died, 98. Remaining under treatment, 1,233.

Five pavilions, accommodating about 60 patients, each have been completed, and two of them are already occupied. The Institution has now a capacity for 950 patients, but is overcrowded to the extent of about 300 beyond the proper limit. A full description of the pavilions is given. They are of wood, one story high, 165 feet in length, by 28 in width. The dining room is located in the middle of the building; the attendants' and store-rooms are provided in an extension from

the center of the pavilion. The service rooms are placed in an extension upon one side, at the end. They are heated by stoves. The ward is used as a dormitory, and a day-room for the patients. The cost of these buildings, including water-closets and fixtures for lighting and warming is \$6,000, or an average of \$100 per patient. The advantages and disadvantages of these pavilions are presented in the report. The opinion is expressed, that while in each case, those only who are in charge of institutions, can decide upon the utility of such structures, in view of their own peculiar circumstances, at this Asylum, they have been found economical and satisfactory. Improvements upon the grounds, in the steam heating apparatus, in the dietary and clothing of patients, and an increase in the number of attendants, are reported. These changes are such as have been demanded for a long time, as the insane of the County of New York have not been cared for in a manner either creditable to the generosity of the city, or even in accordance with the principles of humanity. The present Board of Commissioners deserve praise for their efforts to alleviate the condition of the insane, but they should not rest satisfied with the present state of affairs. Additional medical officers are needed, and increased remuneration should be granted. The corps of attendants is still inadequate to perform properly the arduous duties they are called upon to fulfill. More extensive accommodations are imperatively demanded, to enable the Institution to accomplish the good which is in the scope of its intentions, viz: the cure of the insane. All other requirements being fully met, such overcrowding, as this Asylum is constantly subjected to, is alone sufficient to impair its usefulness. All of these wants are recognized, and brought to the attention of the board in the report before us.

Annual Report of the New York City Asylum for the Insane, (Ward's Island,) 1875. Dr. A. E. MACDONALD.

There were in the Asylum, at date of last report, 673 patients. Admitted since, 401. Total, 1,074. Discharged recovered, 106. Improved, 75. Unimproved, 128. Not insane, 25. Died, 147. Total, 481. Remaining under treatment, 593.

The admissions are less by fifty-five than during the previous year. This decrease is not attributed to any diminution in the occurrence of insanity, but to the stringency of the new law regulating admissions, and to the closer scrutiny of the applications regarding residence and ability of patients to pay for their support elsewhere. The large number discharged unimproved were transferred to another institution of the department, the wards of the Inebriate Asylum, then nearly empty. The use of this building has obviated the necessity for the construction of additional buildings.

Some of the tables presented are important, on account of their practical bearing upon questions of interest in the specialty. The tabulation of habits of the four hundred and one admissions, shows that two hundred and eighty were intemperate, ninety were moderate drinkers, and only seventeen were abstinent, while in fourteen cases the habits were not ascertained. This record is confirmatory of those of former years, and such as to leave "no doubt in the mind of the writer that more than any one other active cause—more than all active causes put together—intemperance is responsible for the mental aberration of the patients, at least in this special Asylum." This is a striking fact, and shows to what extent this vice prevails among the laboring and dependent classes of this great city.

The table of hereditary predispositions shows that in two hundred and thirty-nine cases in which the

facts were obtainable, there were but forty-one in whose history there was not present such hereditary conditions as might be considered influential in predisposing the insanity of the individual.

A table is presented giving the new dietary scale, and an exhibit of the daily cost of maintenance since its adoption. The average for the year is 32.7 cents per day per patient, an increase of five cents only over previous years for provisions. The greater variety and more appropriate food, and this small additional sum, gives a marked improvement in the comfort and condition of the patient.

Under the head of "Medical Notes" are given the remedies employed in the treatment of patients, their doses and the general indications for their use.

The opportunity for pathological investigation has not been neglected. Three autopsies with microscopical examinations are presented. The brain in one case, that of an idiot, weighed 67 ounces, without the membranes. This is said to be the heaviest brain thus far recorded.

A change in the organization of the institution, by creating the office of Medical Superintendent, and substituting that of Steward for Warden, is reported. The government of the Asylum is now analogous to that of similar institutions, which has been found by long experience to be the most efficient mode of administration. The changes in the government of the institution, and the improvements in the clothing and dietary of patients already inaugurated and in contemplation, place the Asylum of the city upon a much better footing, and add largely to their power to care for the insane in a proper and creditable manner; and we hope that the Doctor will be able to carry out his views, and bring the institution to such a standard as a metropolitan hospital should represent.

NEW YORK. *Fifth Annual Report of the State Homœopathic Asylum for the Insane*: 1875. Dr. H. R. STILES.

There were in the Asylum, at date of last report, 53 patients. Admitted since, 99. Total, 152. Discharged recovered, 30. Improved, 15. Unimproved, 13. Not insane, 1. Died, 11. Total, 70. Remaining under treatment, 82.

The institution has, during the year, received a large percentage of chronic cases, which has reduced its percentage of recoveries. This upon the whole number under treatment has been 19.7 and deducting all cases of over one year's duration, the percentage of recoveries for the nineteen months, since the opening of the Asylum, rises to 31.5.

Our medical treatment continues to be purely according to the homœopathic law of "*similia similibus curantur*," and entirely without resort to any of the forms of anodyne, sedative or palliative treatment so generally in use (even among physicians of our own school) in cases of mental disturbance. Not a grain of chloral, morphine, the bromides, etc., etc., has ever been allowed in our pharmacy, or given in our prescriptions, nor do we feel the need of them even in our most violent cases of acute mania. A careful study of the mental and physical symptoms, together with a rigid adherence to the Hahnemanian principles of selection, and administration of remedies, has enabled us to meet the requirements of each individual case with comfort and success.

Much attention has been paid to the moral treatment, and a large part of the Superintendent's report is occupied with the details of rides, dances, and gatherings of patients for amusement and entertainment. The wants of the Asylum in the way of buildings for the help employed, for store-rooms, work-shops, and for a mortuary, are noticed. The need of some provision for obtaining a medical and scientific library, and for supplying the current literature of the profession, is brought to the attention of the Board.

NEW YORK. *Report of the Providence Lunatic Asylum: 1875.*
Dr. WILLIAM RING.

There were in the Asylum, at date of last report, 75 patients. Admitted since, 62. Total, 137. Discharged recovered, 29. Improved, 13. Unimproved, 8. Died, 9. Eloped, 2. Removed, 1. Total, 62. Remaining under treatment, 75.

There were also received during the year: Inebriates, 44. Opium habit, 2. Total, 46. Discharged, inebriates, 40. Opium habit, 1. Died, 4. Total, 45. Remaining, 1.

PENNSYLVANIA. *Annual Report of the State Lunatic Hospital: 1875.* Dr. JOHN CURWEN.

There were in the Hospital, at date of last report, 416 patients. Admitted since, 167. Total, 583. Discharged recovered, 38. Improved, 41. Unimproved, 55. Died, 33. Total, 167. Remaining under treatment, 416.

Twenty-five years have now elapsed since the Hospital was opened for the reception of patients. During this period three thousand nine hundred and eighty-eight patients have been admitted; of those discharged eight hundred and fifty-nine were restored; eight hundred and forty-seven improved; one thousand one hundred seventy-six unimproved; and six hundred and sixty-three died.

Dr. Curwen gives a recapitulation of the results attained during the existence of the institution, and also makes remarks upon the subject of insanity. The disastrous effect of the premature removal of patients from the Asylum, and the causes which influence friends in their action are given. The advantages of early treatment in all cases of insanity, both to the patient and the community, are appropriately stated

and enforced. The history of provision in the State shows, that to Pennsylvania is due the high honor of having established the first Asylum upon this continent, for the care of the insane; that following this, other institutions have been erected, and still others projected, in fulfillment of the design to provide the different sections of the State, with asylums designed by location and size to accommodate all of the insane. The limited and properly supervised use of mechanical restraint, as employed in American Institutions, is advocated by arguments, founded upon an experience of its benefits to the patient restrained, and to those with whom he is associated.

A concise statement of the objects sought to be accomplished, and the method adopted for their attainment in the construction of asylums, their government, and in the occupation and amusements of patients, together with a list of the Trustees and Medical Officers, who have held position in the Hospital, fill out the report.

PENNSYLVANIA. *Report of the Commissioners of the State Hospital for the Insane, Warren, Pa. : 1876.*

The Commissioners report that they have protected the portions of the building which have already been put up, and are now devoting all the labor to the construction of the extreme sections, which will be used in the treatment of the most disturbed patients. This is the class for which accommodations are first and most needed. The officers can reside, till the center building is completed, in the structure put up for business purposes, during the erection of the Hospital, and in a dwelling house which is on the property. These extreme wings are now up to the third floor of joist where they are covered in for the winter. The

hope is expressed that during the next season of 1877, they may be put under roof and that other portions, may be so far completed that in 1878, the Hospital may be able to receive patients. They report that the work has been well and economically performed, and express the belief that the whole Institution will be finished within the amount originally fixed upon. They request from the Legislature an appropriation of \$200,000 for the two following seasons.

DISTRICT OF COLUMBIA. *Report of the Government Hospital for the Insane: 1876.* DR. CHAS. H. NICHOLS.

There were in the Hospital, at date of last report, 718 patients. Admitted since, 213. Total, 931. Discharged recovered, 84. Improved, 36. Unimproved, 1. Died, 66. Total, 187. Remaining under treatment, 744.

The Doctor reports that the enlarged assembly room serves its purpose admirably, that it will accommodate all of the household, both patients and employés, between five and six hundred in number, who can attend upon services. We quote from the report the following statement of investigations made regarding the ventilation of the building.

Assistant Surgeon D. L. Huntington, U. S. A., with two assistants from the Surgeon-General's Office, has recently made a series of observations with several carefully adjusted anemometers to ascertain the amount of air supplied to the Hospital by its fan. At the least speed at which it is customary to run the fan-engines (forty revolutions per minute, the fan making two revolutions to one of the engines) the supply each minute was found to be 54,784 cubic feet, or an average of seventy cubic feet per minute to each individual of the main house. If the house contained only the number of inmates it can suitably accommodate, the air supply would be over one hundred cubic feet per minute to each individual. This air supply is absolutely certain, irrespective of seasons or wind-currents. Of course, in the warm season, when the windows are raised, the wind-currents often supply and change the air

much more rapidly. Such a rate of air-change supplemented by scrupulous cleanliness, and the disinfection of water-closets and urinals, renders the condition of the air of the Hospital as high, perhaps, as it is practicable to attain in a house as crowded as the male wards of this are. It should be stated that two detached buildings which accommodate eighty (80) patients are not included in the system of forced ventilation.

We are glad to see this practical estimate of the value of forced ventilation. When the Asylum at Utica, adopted this system, in 1854, the first fan introduced, experiments with an anemometer showed that it discharged one thousand cubic feet of air with every revolution, which was doubled afterward by the introduction of another fan. A recording instrument was attached and a careful record was kept for ten years, with the following result.

The average amount per minute, during the year, has been 106,333 cubic feet, or about 152 cubic feet per minute, night and day, to each person, assuming 700 as the average population.

In the months of January, February, March and December, the supply is 84,000 cubic feet per minute, or 120 cubic feet to each person. In April, May, October and November, it is 95,000 cubic feet per minute, or 137 cubic feet to each person; and in June, July, August and September, it is 140,000 cubic feet per minute, or 200 cubic feet to each person.

The cost is not great considering the benefits secured. Irrespective of heating, the amount of coal used to force in 106,333 cubic feet per minute is 1,440 pounds per day, or one pound of coal per minute. This would be a penny a day for each person if the coal cost \$10 per ton. The weight of the air thrown in per minute is 8,971 lbs.

VIRGINIA. *Report of the Eastern Lunatic Asylum: 1876.* Dr. W. H. BLACK.

There were in the Asylum, at date of last report, 305 patients. Admitted since, 52. Total, 357. Discharged recovered, 24. Improved, 5. Unimproved, 2.

Eloped, 2. Died, 20. Total, 53. Remaining under treatment, 303.

The Doctor reports the destruction by fire on the 8th of January last, of the building in which were the chapel, amusement hall, store room, kitchen, bakery and dining room for employes. As the State Legislature was in session, a committee of the same was appointed to visit the Institution and ascertain the cause and origin of the fire. They report that in their opinion the fire originated from a defective flue in the bakery. They also report that the means provided for extinguishing fire were not in good condition, and were not properly utilized. The hose was rotten and worthless; the engineer was living at a distance from the Asylum, and thirty-five minutes elapsed before he arrived and commenced the use of the fire pumps. From these and other causes mentioned, the fire was only controlled in time to save the other structures. The estimated loss by the fire was \$16,000. The great want of the Institution is a more ample supply of water, as during the past year this has not been adequate for the sanitary uses of the Asylum. Owing to inability of the auditor of the State to furnish the appropriation of \$40,000 made by the last Legislature, the erection of the new building, so much needed to supply increased accommodations, has been postponed.

VIRGINIA. *Report of the Central Lunatic Asylum: 1876.* Dr. RANDOLPH BARKSDALE.

There were in the Asylum, at date of last report, 263 patients. Admitted since, 32. Total, 275. Discharged recovered, 23. Improved, 1. Died, 17. Total, 41. Remaining under treatment, 234.

Owing to the increase in the number of colored insane, and the lack of accommodations for the applicants

for admission, a recommendation is made for the erection of a new asylum capable of receiving and caring for 400 patients. This recommendation receives additional support from the fact that the lease of the present farm and buildings will soon expire. It is considered a matter of justice and economy on the part of the State to increase the capacity of the Institution either by increasing the size of the present buildings or to secure a new location and erect new structures. One hundred applications were made for admission the past year, of which number but thirty-two could be received, forty-eight are already reported as confined in the jails and several counties have not been heard from in answer to circulars sent asking information upon this point.

NORTH CAROLINA. *Report of the Insane Asylum of North Carolina.* Dr. EUGENE GRISSON.

There were in the Asylum, at date of last report, 249 patients. Admitted since, 44. Total, 293. Discharged recovered, 11. Improved, 6. Unimproved, 3. Died, 9. Total, 29. Remaining under treatment, 264.

The report is largely occupied with an account of the work done upon the buildings in improvements and repairs. This will add much to the economy and efficiency of administration. The necessity for these changes and reconstructions have been pointed out in previous reports.

OREGON. *Biennial report of the Oregon Hospital for the Insane: 1875-76,* Dr. J. C. HAWTHORNE.

Biennial report of the Visiting Physician. Dr. CURTIS C. STRONG.

There were in the Asylum, at date of last report, 195 patients. Admitted since, 142. Total, 337. Discharged recovered, 53. Improved, 26. Unimproved,

3. Died, 33. Escaped, 3. Total, 118. Remaining under treatment, 219.

The visiting physician reports the management of the Asylum as without fault. It is favorably located, well supplied with water, and all the material wants of patients are fully provided for. It is suggested that provision be made by the State to enable the Superintendent to attend the meetings of the Association, and the advantages to accrue from the adoption of such a measure are pointed out. This is a matter of importance to the Institution and the interest of the insane, and there is no direction in which the outlay of an equal sum will make better returns to the State. This is so fully appreciated in the Eastern Asylums that most of the Boards of Trustees annually provide for the presence of some of the medical officers at these meetings. The second suggestion for the establishment of a library of standard works relating to the specialty should receive attention and the foundation of such a library should be speedily begun.

CALIFORNIA. *Napa State Asylum for the Insane*: 1876. Dr. E. T. WILKINS.

The report for the quarter ending September 1, 1876, furnishes the following data.

There were in the Asylum, June 1, 179 patients. Received till September 1, 156. Total, 335. Discharged recovered, 40. Improved, 12. Unimproved, 6. Not insane, 11. Died, 11. Eloped, 6. Total, 86. Remaining under treatment, 259.

Those discharged, not insane, were cases of intemperance. They were brought to the asylum in a state of excitement following a debauch, and in a few days having become quiet presented no evidences of mental disorder. The death rate is high because many of the

patients were, when admitted, in such a helpless and feeble state as to be unable to rise from their beds without assistance. The Asylum is now nearly completed, the cost of the buildings, exclusive of furniture, will be \$1,400,000, in gold. It contains eight hundred rooms, including bathing-rooms, closets, clothes-rooms, basement and other rooms for employés. In addition, if desired, the attic story can at small expense be subdivided so as to make one hundred and twenty rooms for patients. The view of the buildings represent it as an imposing structure, the center of four and the wards of three and two stories. It is built of brick upon a granite foundation, and on the linear plan with retreating wings.

TRANSACTIONS OF SOCIETIES, REPORTS AND PAMPHLETS.

Twelfth Annual Report of the Board of State Charities of Massachusetts, to which are added Reports from its Departments, with an Appendix: January, 1875.

Since the Commission in Lunacy consisting of Dr. Allen and Wendell Phillips, has been discontinued by the Legislature of the State of Massachusetts, the Board of Charities is the only body specially interested in and reporting upon the subject of insanity and asylums. It is for this reason that we find the subject has received more than usual attention. It is treated of at length, by the Board, in the introductory and general remarks; this is followed by a report concerning the hospitals for the insane considered individually. The General Agent makes a statistical report concerning the treatment of State paupers in the asylums. The Secretary adds a general history of all the asylums, which is succeeded by an annual review of

the operations of each. In the appendix, to fully complete the subject, we have the consolidated statistics of all the institutions presented in tabular form.

The number of insane remaining in all the hospitals and asylums on the 30th of September, 1875, was 2,283. The whole number in the State is computed at 4,000. It is claimed that the State has provided far more hospital accommodation for the insane, in proportion to her population, than any other State in the Union. It is said 2,100 patients can be accommodated in the hospitals alone. This claim to precedence, may well be disputed by the State of New Jersey, which, with a population two-thirds that of Massachusetts, by the completion of the Morristown Asylum, has provided hospital accommodation for 1,550 patients; or in other words, for all the insane of the State.

The Board expresses the belief that hundreds of insane persons are drawn to the State by the room furnished in their institutions. This statement can hardly be true in view of the effort made by legal enactment to prevent the immigration of paupers and lunatics, and if true, reflects upon the Board for their want of success in carrying out the provisions of the law, though they report 650 persons removed from the State during the year, at an expense of \$2,289.08. Of these 200 were transferred to the State of New York.

The mental status of these persons is not given, so we can not say how many of them are insane; but to seek out the legal home of all the dependent classes and to return them thereto, constitutes a large part of the duties of the Board.

The cost of the new hospitals at Danvers and Worcester is estimated at \$2,500 per patient. This is further represented by them, by an annual interest account of \$150, or \$3.00 per week, which, added to the cost of

maintenance, gives \$7.00 per week per patient as a total.

The belief is expressed that in the treatment of acute cases, the best results are attained in the smaller institutions, say of from 250 to 300 patients. This is in opposition to the view expressed by the Association of Superintendents of Asylums, who, at one of their recent sessions, expressed themselves as favoring institutions which will accommodate from 500 to 600 patients.

An analysis of the number of recoveries for a series of years does not show the same proportion to cases treated as formerly. The cause of this, it is acknowledged, is difficult to determine. The influences mentioned as possible causes, are a change in the character of the disease, overcrowding of institutions, and greater chronicity on admission. In the early history of the treatment of insanity, it was a common thing to discharge patients as recovered, when the maniacal excitement had subsided, and many were sent away as cured who retained their delusions and were still insane, though quiet and orderly. Of these some returned upon the recurrence of a paroxysm of excitement, to again swell the number of recoveries, and others passed into a chronic condition whose insanity was unrecognized. The permanence of a normal mental condition was rarely assured by a restoration to a healthy physical state, which is the only sure basis upon which to predicate a recovery. As regards admissions, at that time usually only the dangerous and most troublesome patients were sent to an asylum, the quiet, chronic class were either kept at home, or allowed to roam about the country. The law now reaches all classes, and makes their care obligatory upon the public. The necessity for employment for the insane, which should be regular and systematic in

character and adapted to each individual case, they make as a plea for small institutions. The tillage of the land is considered to be the kind of labor best adapted for the purpose, and regret is expressed that all the institutions are not so located as to possess the required amount of land. That at Taunton is described as poor, and only a limited portion can be put under cultivation. The Worcester Hospital will be more favorably situated in this regard in its new location. The Northampton Asylum is quoted as an example of what may be accomplished in economy of administration, by properly utilizing the land and the labor of patients. The example of some English and Scotch Asylums in leaving the doors of the wards unlocked, and giving the patients full personal freedom receives approbation. They say that the method is based upon the laws both of mind and body, and further, that by this means alone can the love of liberty, self-respect and self-government be developed and strengthened.

This kind of rhetoric needs but to be stated and to have attention directed to it, to show its fallacy and weakness. In every institution there is a class of patients to whom this liberty has for years been granted, and nothing has been thought of it. Some one classifies such patients in one ward, takes off the locks and "presto, change," a new era in the treatment of the insane is entered upon, and the single instance of the Fife and Kinross, or some other asylum, becomes an example to the world, a synonym of progress, and is quoted by a State Board as worthy of imitation by authorities of all institutions for the insane.

The prevention of insanity is spoken of as a most important topic of consideration, both for the profession and the public, and the Board expresses regret that it has received so little attention from the superintendents of

asylums, and say that on looking over fifty reports of asylums, but one reference is made to it. From a short extract from the Scotch Commissioners' report, the conclusions are drawn that insanity is a preventible disease, that measures put forth to that end would be successful, and that by prevention alone can the extent of the disease be materially diminished. The subject is not elaborated by the Board, but is left with the comment, that lunatic asylums, however numerous and well meaning, never have and apparently never will put much of a check to insanity, though they may do something to retard its rapid growth.

Such statements can have little value except as the utterance of truisms, unless the Board follows them up by close investigation into the domain of social science, discovers the elements out of which the evil springs, and suggests the practical methods by which they may be controlled or eliminated. It would seem that no more important subject could claim the attention of the Board, and moreover that it is directly in the line of their duty. There is, in the opinion of the Board, when considering the statistics of insanity, one favorable and encouraging fact, that there is no increase of recent insanity in the State, that is, there are no more attacks of insanity in a year than formerly, taking into account the increase of population. The report deals largely with the other charitable and correctional institutions of the State. Their workings are analyzed and various recommendations are made looking to their efficiency and economy of administration.

Mania Transitoria. By EUGENE GRISSOM, M. D. Read before the Medical Society of North Carolina, at its meeting in Fayetteville, N. C., May 4, 1876.

This is an address of about fifty pages, and is composed almost entirely of extracts from various authors,

giving cases of the so called "mania transitoria," or "impulsive insanity." The fairness of Dr. Grissom in presenting the views of the editor of this JOURNAL, and of other contributors to its pages, who have opposed the recognition of this form of insanity, renders unnecessary any review of the address. The author does not commit himself to a belief in sudden transient attacks of mania, but urges those who are called to investigate a case of impulsive insanity :

To examine thoroughly the history of the family of the accused, for nervous diseases of any character, and especially the insane neurosis.

To search the past life of the individual himself, for any indications of chronic but concealed insanity.

Especially, to ascertain if there is not evidence of larrated epilepsy, by a rigid symptomatic test.

And farther, to investigate the possible occurrence of any traumatic injury capable of giving rise to cerebral irritation of obscure character, and likewise to examine narrowly his record as regards physical vices of every character.

The Necessities of the Insane in Tennessee. A paper read before the State Medical Society, April 4, 1876. By WILLIAM P. JONES, M. D., late Superintendent Tennessee Hospital for the Insane. [Reprinted from the Transactions.]

Probably no resident of the State of Tennessee is more familiar with the wants of the insane, and with the advantages of treatment in an asylum, than Dr. Jones, the author of this paper. He has, not only as a superintendent, but as a legislator and a private citizen, labored to promote their interest, and to place the State in the foremost rank as regards its care of this unfortunate class. In this article he presents for the consideration of his medical brethren, the arguments both economic and humanitarian, which should govern their action, and which show beyond a peradventure the

duty of the State to carry into effect the proposition, which at one time received legislative sanction, to erect additional asylums in different sections, sufficient for the accommodation of its insane population. It is earnestly to be hoped that success may crown his long continued and disinterested efforts.

Spiritualistic Madness. By L. S. FORBES WINSLOW, M. B., Cantab, D. C. L. Oxon. Lecturer on Mental Diseases, Charing Cross Hospital, and editor of the *Journal of Psychological Medicine and Mental Pathology*.

The opinions of strangers regarding the effect and tendency of theories or beliefs upon a people are considered valuable, in that the judgment is less liable to be warped by prejudice, or by those influences which surround the immediate actors, or those in close relation to them. This statement, however, presupposes a full knowledge of the facts upon which alone a correct judgment can be founded. Applying this principle to the case before us, we find that our author disclaims all prejudice in advance, but we believe he has been misinformed regarding the facts, a circumstance which would render his opinion valueless. In proof, the assertion that "nearly ten thousand persons having gone insane on the subject (of spiritualism,) are confined in the public asylums of the United States," is so manifestly untrue, and such an aggravated exaggeration as at once to challenge attention, and call forth a prompt denial—and again, "the facile credulity in spiritualism which is spreading widely at the present day, must be considered as one of the principal causes of the increase of insanity. This assertion can be readily proved or disproved by reference to the tables of causation in the reports of American asylums. These we have carefully examined, and the number of cases in which spiritualism is given as a cause is insignificantly small, and in most institu-

tions it is not mentioned as a probable cause of the disease. The truth of the following statement, even when made upon the authority of American journals, we submit to the knowledge and judgment of our readers, "that in America the mediums become haggard idiots, mad or stupid: this has been frequently stated in American journals; and not only do the mediums become so, but also their auditors." This would be a melancholy spectacle, and one which would very properly command the sympathy of our foreign brethren. Dr. Winslow puts the number of mediums at 30,000, and of believers at 2,000,000. How many believers in the so-called spiritualism there are in the United States we have no means of judging. In their own publications they claim an enormous following. That this delusion is wide-spread in this country there can be no doubt, and the moral and social evils are correspondingly great, but that it produces much insanity can not be sustained.

We will not call attention to any more errors of statement which the article contains, as those already presented are sufficient to show the worthlessness of conclusions found upon such data. The pamphlet concludes with some comments upon witchcraft, and the moral epidemics of the middle ages, and with some cases of so-called spiritualistic madness.

Specialists and Specialties in Medicine. Address delivered before the Alumni Association of the Medical Department of the University of Vermont, Burlington, June 27, 1876. By M. H. HENRY, M. A., M. D., Surgeon in Chief to the State Emigrant Hospital, New York, &c., &c.

Dr. Henry begins his address with a statement of his belief in specialists and specialties, under certain conditions. "*I believe in the specialist who has won distine-*

tion by ripe clinical observation, a good knowledge of pathology, histology, microscopy and practical experience, and who after a good course in the general practice of his art finally decides to treat only a certain class of diseases."

The evils attending this division of labor are acknowledged to be of a serious character, and the result is perhaps best shown "in the wane of public confidence in the regular practitioner." "This is produced by the great number of incompetent specialists who attract people by various arts, so that now diseases that were skillfully and successfully treated in the early part of the century by the general practitioner are now sent from one "ologist" to another until the sufferer, exhausted of patience and means seeks in utter despair the assistance of the nearest quack." Next in order follows the suggestions of how to get rid of these evil influences, which operate in the production of specialists. This opens the way for a plea for a higher standard of education and culture in medicine, which is really the object aimed at in the address. It is illustrated by some instances of the failure of specialists to recognize forms of disease outside of their own limited circle of practice and experience.

Stricture of the Male Urethra, its Radical Cure. By FESSENDEN N. OTIS, M. D., Clinical Professor of Genito Urinary Diseases, College of Physicians and Surgeons, New York City, also, A Clinical Lecture on the Treatment of Incipient Stricture, by Otis' Operation, delivered at University College Hospital, London, March 16, 1876, by Mr. Berkeley Hill, Professor of Clinical Surgery in University College. [Reprinted from the *London Lancet* of April 8, 1876; together with explanatory remarks on the Treatment of Stricture and Gleet. By Fessenden N. Otis, M. D.]

These embrace a full and clear expression of the views of Dr. Otis upon this special topic.

The Treatment of antelexions of the Uterus. By ELY VAN DE-WARKER, M. D., Syracuse, N. Y. [Reprinted from the *New York Medical Journal*, June 1876.]

In this article the Doctor records his opinion of the value of intra uterine stem pessaries in the treatment of antelexions. This is founded upon his experience with their use, and in support of the view entertained he records his treatment of several cases, some of them presenting difficulties and requiring the exercise of unusual skill and of specially prepared instruments. The success attending the treatment of antelexions, which are frequently so troublesome by the means ordinarily employed, by this form of pessary, would seem to be sufficient to encourage further investigation.

A Clinical Lecture on the Use of Plastic Dressing in Fractures of the Lower Extremities. By DAVID W. YANDELL, M. D., Professor of Surgery in the University of Louisville. [Reprinted from the *American Practitioner* July 1876.]

The lecture was delivered as an answer to the question, "*What was the best time to put up such fractures?*" The immediate reply was, "*The earliest possible moment after the bone was broken. The sooner the better.*" Then follow arguments to sustain the position and instances occurring in practice to illustrate it. It is an interesting and satisfactory response and will very properly carry the weight of an authority with it.

Degenerations of the Placenta as a cause of the death of the child. By CHARLES A. LEALE, M. D., [Reprinted from the transactions of the New York Academy of Medicine.]

This article consists of a number of illustrations of degeneration of the placenta and of conclusions drawn from the cases presented.

The Operation for Stone as observed in some of the London Hospitals, together with a Report of Cases from Private Practice. A. VANDEVEER, M. D., Professor of the Principles and Practice of Surgery in the Albany Medical College &c., [Reprinted from the Archives of Practical Surgery, October 1876.]

Report of the Committee on Medical Education made to the Medical Society of the State of California. By JOS. F. MONTGOMERY, M. D., Chairman. [Extracted from the transactions of the Medical Society of the State of California, for the year 1876.]

Annual Report of the Chief of Staff of Charity, Fever, Epileptic, Penitentiary, Almshouse, and Workhouse Hospitals, and of the Hospital for Incurables: Blackwell's Island, N. Y. DR. DANIEL H. KITCHEN, M. D.

BOOK REVIEWS.

Contributions to Reparative Surgery—Showing its application to the treatment of deformities, produced by destructive disease or injury; congenital defects from arrest or excess of development; and cicatricial contractions from burns. By GORDON BUCK, M. D., New York: D. Appleton & Co., 549 and 551 Broadway, 1876.

The volume contains the author's own experience in the field of plastic or reparative surgery. It does not claim to be a thorough or exhaustive treatise upon the subject, though it presents many points of interest, and it is believed, contributes something to the resources of the surgeon's art. "There is no department of surgery where the ingenuity and skill of the surgeon are more severely taxed than when required to repair the damage sustained by the loss of parts or to remove the disfigurement produced by disease or violence, or to remedy the deformities of congenital malformations. The results obtained in such cases within the last half century are among the most satisfactory achievements of modern surgery."

The cases reported by Dr. Buck show admirable results following the treatment. They are classified as follows: First class, loss of parts involving the face, and resulting from destructive disease or injury. Second class, congenital defects from arrest or excess of development—as, hare-lip, &c. Third class, cicatricial contractions following burns. These latter deformities have usually been neglected, as being irremediable. The improvement in Dr. Buck's cases, may encourage the continuance of efforts for their relief. The different cases are illustrated by well executed wood engravings, showing the appearances before and after the operations. A chapter on transplantation of skin, giving the choice of material, the methods of transfer, the treatment of raw surfaces left to heal by granulation, and on sutures and their management, very properly introduces the subject to the reader.

Lectures on Diseases of the Nervous System. By J. K. BAUDUY, M. D., Professor of Psychological Medicine and Diseases of the Nervous System and of Medical Jurisprudence, in the Missouri Medical College, &c., &c., &c. Reported by V. Biart, M. D., revised and edited by the author. Philadelphia: J. B. Lippincott & Co., 1876.

This book contains the lectures delivered by Dr. Bauduy before the class of the St. Louis Medical College, during the sessions of 1874 and 1875. These were reported and afterward subjected to revision by the author. They claim to cover the field of nervous diseases proper, and insanity. It could not have been expected that an exhaustive treatise upon these subjects could be condensed within the covers of such a volume. The attempt to accomplish this has been but a partial success, as the condensation has been at the sacrifice of style and of important matter. From the former, the sentences lack that cohesion and unity,

which present, would have made the work more pleasant reading, while the latter renders its imperfection more marked.

The portion devoted to nervous diseases comprises the larger part of the volume. The subject of insanity is disposed of in six lectures, while three are given to the discussion of epilepsy, one of which is occupied with its medico-legal relations, and especially with the case of Klingler, in which the author was an expert witness. General paralysis of the insane is dismissed with four pages, one of which contains the recital of two cases. There is really no history of the progress of the disease or of its pathology. A few of its most prominent mental and physical symptoms alone are noted. The same defect is noticeable in the account of other diseases.

The theory advanced regarding insanity, is in the main in accord with the best authors, and is free from the materialistic tendencies which are a prominent feature in some treatises. The book is free from exaggeration of statement and from attempts at display by the statistics of cases, or by recounting the success of the lecturer in his own practice. Finely spun theories and shadowy distinctions find no place in the volume. These are points of commendation. We can but regret, however, that the ground is not more thoroughly cultivated and that the subjects touched upon are not more fully treated, in a work intended for a text book, and for consultation by practitioners. The publisher has presented it in a very attractive style and the mechanical execution is excellent.

PATHOLOGICAL ANATOMY.

APHORISM OF PATHOLOGICAL ANATOMY OF THE NERVOUS CENTERS. By Prof. RUD. ARNDT, of Greifswald, *Archiv* 61, 4.

I. Pigmentary degeneration of the medullary sheath of nerve fibres.

In the intervertebral ganglia of a paretic with tabetic symptoms, who was confined to bed during the last three years of life, Arndt found a peculiar degeneration of the nerve fibres. The medullary substance was transformed into a grumous mass, of a dark brown color, which often but loosely enveloped the axis-cylinder. In isolating the fibres these masses frequently slipped out of the primitive sheath, forming aggregates quite similar to pigment bodies formerly observed by the author. (*Archiv f. Psychiatrie* I p. 775.) He concludes that these also very probably were products of a decomposition of the medullary substance, and that their occurrence indicates an atrophy of the nerve fibres, which commonly originates in the medullary sheath.

II. Tubular degeneration of the medullary sheath.

In partial softening of the spinal cord, and in grey degeneration, the author observed by examining transverse sections, colored with carmine, the medullary sheath to consist of concentric layers. As the medullary substance showed an inflated condition, there was no doubt of a pathological alteration; but still, Arndt believes that it also establishes the true structure of the sheath, which normally, very probably, grows by forming concentric layers.

III. Splitting of the axis-cylinder.

In the spinal ganglia of the same paretic, mentioned in No. 1, and in the ganglia Gasseri of another paretic, who had shown no tabetic symptoms, Arndt frequently found fibres deprived of the medullary sheath, the axis-cylinder of which exhibited a peculiar degeneration. The changes were mostly observed in thick and broad fibres. Treated with carmine they showed a pale grayish color, interwoven with red streaks which, in eight hundred diameters, appeared as small bands, varying in number from three to five. A similar division of the axis-cylinder into its primitive

fibrillæ, has been observed by Remak, Neumann, Eichhorst and Westphal, in lead paralysis. It remains still undecided whether this degeneration is combined with a hypertrophic condition, or with that of a simple swelling. Arndt inclines to adopt the latter, since at the same time other parts of the nerves, as the medullary sheath, perished under the signs of atrophy.

IV. Nucleated nerve fibres.

In the brain and spinal cord of persons only, who died insane, Arndt recently observed nerve fibres of which the axis-cylinder was covered with oblong nuclei. He tries to explain this occurrence by referring to the development and growth of the fibres. In the normally and fully developed fibres, these nuclei disappear, and thus the author claims their presence to be the result of an arrest of development.

SUMMARY.

Dr. F. W. Mercer, Senior Assistant Physician of the Southern Hospital for the Insane, at Anna, Illinois, will, after four years service, resign his position in April next, for the purpose of engaging in private practice.

—Dr. D. R. Burrell has taken the position of Superintendent of "Brigham Hall," at Canandaigua, N. Y., vice Dr. George Cook.

—Dr. P. O. Hooper who attended the meeting of the Association of Superintendents in Philadelphia, last June, as representative of the Arkansas Insane Hospital, and subsequently visited several northern institutions, has made his report to the Board of Trustees. He recommends the establishment of a State Hospital, capable of accommodating two hundred and fifty patients, and presents a plan for the building. The pe-

cularities of the plan are not given in the synopsis before us, but it has been prepared after an intelligent examination of some of the best arranged institutions. The site is described as an eligible one, but seems to have one almost vital defect, the water supply can be obtained only from wells which must be dug on the premises. A full and inexhaustible supply should be assured before steps are taken for the erection of an asylum.

—We have received the first number, for December 1876, of the *Quarterly Journal of Inebriety*. The prospectus announces that it will be devoted to the study of inebriety in all its many phases, and of the opium mania; that it will be a medium for the presentation of all investigation and studies in this field, and also the official organ of the "American Association for the Cure of Inebriates," publishing all its papers and transactions, and promises to give the practitioner a full review of all the literature of the subject of inebriety. The subscription price is \$3.00 per annum. All books, magazines, and exchanges should be addressed to T. D. Crothers, M. D., Secretary, Binghamton, N. Y.

—We see by the Proceedings of the Association, published in this number of the JOURNAL, that Dr. T. D. Crothers is the Assistant Physician in the New York State Inebriate Asylum, at Binghamton, N. Y.

AMERICAN
JOURNAL OF INSANITY.
FOR APRIL, 1877.

GENERAL PARESIS.*

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The disease concerning which I am to present to you a few clinical notes, derives special importance from the comparatively recent date at which its identity has been established, and from the remarkable increase within that period of the number of cases of insanity assuming its characteristics. Although, in the light of our present knowledge of its evidences, we can recognize them as existing in individual cases long since described, yet so rare were these cases that they were regarded as simply presenting unusual symptoms added to those of some one or other of the then accepted varieties of mental aberration; and it is within this century that the increasing frequency of occurrence, of such cases has led to their closer study, and so to their separation into a distinct type of mental alienation.

For a long time the theory of such separate identity was vigorously combatted, and even yet there are alienists and pathologists, who, differing from the great

* Read before the New York Neurological Society, January 9th, 1877.

majority of their compeers, hold that the association of the mental with the physical alterations is only fortuitous, and does not constitute a distinct diseased condition. But this view is steadily losing ground, and can scarcely be deemed tenable by any one whose investigations of the morbid manifestations have been practical rather than theoretical.

If general paralysis is simply insanity plus paralysis, the two conditions having no inter-dependence one upon the other, we might expect to find a similar paralysis attacking patients whose minds remain unaffected; but we do not; or to find patients manifesting similar evidences of mental, without motor disturbance; but we do not. And again, where there *is* insanity and where there *is* paralysis of this nature, we should expect to find the association, if it be indeed accidental, at one time with one form of mental alienation, and at another time with another form; but *this* we never find. Other paralyses, indeed, may attack the sane, or, attacking the insane, may be found in different cases associated with mental disturbances of different types; but the paralysis of which we speak is no more plainly distinguished from other paralyses by physical peculiarities, than is the insanity with which it is always conjoined distinguished from sanity, or from other forms of insanity, by certain definite mental peculiarities.

In the few cases wherein the disease attacks those who at the time of its invasion are suffering from insanity of another form, we find further proof of this inter-dependence, for the mental manifestations of that form are replaced by those of paresis as the physical symptoms of the latter disease assert themselves.

Since its recognition, and exaltation to the dignity of a distinct disease, much has been written, much recorded and much conjectured, concerning this affection.

The names applied to it have been various. Among others: "Paralytic Insanity" or "Paralytic Dementia;" "General Incomplete," or "General Progressive, Paralysis;" and finally, "The General Paralysis of the Insane," shortened to the "General Paralysis" of the English, and "General Paresis" of our own writers.

My own contribution to the study of the disease is intended to be rather in the way of record than conjecture, to present an abstract of the present state of knowledge upon the subject, and to apply the theories advanced, and the observations detailed by others, to the cases which have come under my care in the institution to which I am attached. In reading the descriptions of others, I have been struck by the small number of cases, upon the examination of which important conclusions have been based, and it has seemed to me that by the examination of a larger number of cases we might at once determine more accurately the value of these conclusions, and at the same time clear up some existing differences, which may, very possibly, have arisen from the paucity of material available for analysis. The asylum under my charge, admitting within its walls a number of General Paretics considerably larger than that coming under the care of any other similar institution, at least in this country, has seemed a convenient place for such an experiment, and I have, accordingly, during the past two years and a half, with the assistance of Dr. James G. Kiernan, of the asylum staff, engaged in the collection of material for the notes which I submit this evening.

There have been treated in the asylum during the period named two hundred and five cases of General Paresis, out of a total of one thousand six hundred cases of insanity of all kinds; and for the purpose of

comparison upon certain points, examination has been made of the tables accompanying all reports received from other asylums in this and foreign countries, so that upon these points the statistics represent the examination of over eighteen thousand cases of insanity.

My excuse for presenting these notes in a manner calculated to reach gentlemen in general practice, rather than one addressed more directly to those connected with asylums, must be found in my belief that anything tending to simplify and render more certain the diagnosis of General Paresis is of special importance to the general practitioner, who must have to do with sufferers from the disease before their admission to an asylum, and at a time when the recognition of the true character of the malady may save the patient and his friends from very serious consequences. To this is added the more practical reason that an examination of the certificates sent to the asylum by gentlemen in private practice shows that they recognized the true character of the disease in but three cases out of thirty-five, in which they made affidavits.

Physicians connected with Public Institutions make a somewhat better showing, detecting the form of insanity in thirteen instances out of eighty-five.

Corroborative evidence of want of familiarity with the indications of the disease, and with its great fatality, is to be found very frequently in the newspapers, which, accompanying the record of the illness of some prominent personage with the detail of such symptoms as show indubitably commencing Paresis, often conclude with the announcement that "in the opinion of the family physician, a few weeks rest, will restore the patient to his usual health."

The diseased condition to which we apply the name "General Paresis" is characterized by an association of

psychic and somatic symptoms, of which progression is the prominent quality. A case fulfilling the requirements of its designation will be marked by progressive incomplete paralysis of the muscles, extending gradually over those of the entire body; and by a mental failure marked by extravagant delusions, progressive also, both in the degree of their grandeur and in the variety of the subjects which they embrace.

A brief description of the course of the disease will best illustrate its characteristics, and lead us to the proposed examination of the various theories which have been advanced regarding it.

A man, then, of middle age and robust frame, of active and vigorous habits, given very probably to high-living, with the various dissipations which the term has come to imply, but preserving among his associates the reputation of a keen and shrewd business man, is observed to undergo a change.

Generally there is a period of melancholy and depression, with moroseness and irritability, lasting but a few days, and very possibly passing unnoticed. Then the man is seen to be flighty. In his business he shows a speculative tendency and a recklessness that are new to him; he makes useless purchases, and contracts, and bargains, that must necessarily be disadvantageous to him. In his personal life, if he has been correct before, he now becomes dissipated and fast; if he has been self-indulgent, he seeks new and grosser dissipations.

With it all there is an evident air of self-esteem, of physical and mental well-being, a tendency to loudness of manner and dress, to ostentatious display, coupled with unusual and unnecessary generosity toward others. The prevailing feeling now is one of good-humor, the desire is to have a good time and share it with as many others as possible. A little further progress in this di-

rection and we find open indecencies of conduct, petty thefts very likely, violence towards others who have refused to join in the proposed good time or remonstrated with its proposer; and with them all, a decided failure of memory, covering especially actions and events of very recent occurrence. In the meantime physical symptoms have become apparent, detected at first, if at all, only by those familiar with the disease, but gradually forcing themselves upon the attention of ordinary observers.

The prominent feature of these changes is a loss of co-ordinating power in the voluntary muscles, progressing steadily toward their complete paralysis. This is recognized as first affecting those most delicate in function. Our attention will be called to a slight hesitancy in speech, and looking at the lips and the protruded tongue, we shall find in the former a slight tremor with an inability to keep them firmly closed, and in the latter a convulsive trembling, with an inclination to return by a sudden involuntary jerk into the mouth.

The articulation is manifestly abnormal; there is a thickness of speech like that of a drunken man, a halting at certain words, and a slurring over of others. It is evident the patient feels there is something wrong in this respect, and endeavors to right it, enunciating his words slowly and carefully, and for a time succeeding, but soon lapsing again, and making especially bad work of it where vowel sounds are few and labial sounds frequent. The appearance of the whole face alters too, it has a flabby, greasy look, and the facial folds are relaxed, perhaps unequally, and in time obliterated.

But more distinctive still is the appearance of the eyes, showing changes so constant, and so uniform, that they furnish one of our most reliable aids to diagnosis. At first there may be contraction of the pupils, but

later there is dilatation usually *unequal*, and in this inequality lies the great value of the evidence. Often added to inequality, there is irregularity of pupil; from the edge of the iris being folded in, and there may be ptosis too.

The want of co-ordination is now found also in the muscles of the extremities. If the elbow is bent and the fingers extended, they can not be held steady, but their tips will tremble and jerk convulsively. Hence the handwriting is altered, and becomes scratchy and irregular; some letters are larger than others, and the lines upon the paper are not followed. The mental change makes itself apparent in the composition of the letters, so that their perusal will doubly indicate the condition of the writer. The change will be similar to that noticed in the speech—a tendency to omit words or parts of sentences, to mingle topics together, and especially to repeat phrases, and to reassert some prominent idea or ideas. In the lower extremities the want of co-ordinating power produces changes of gait. There is at first a little difficulty in getting started promptly and easily; a little tendency to make a wider circle round corners, and a decided difficulty in changing direction quickly, and avoiding collisions. As these difficulties progress, the gait becomes more markedly abnormal. There is a tremulous, unsteady step, the patient separates his feet and stretches out his hands, as if afraid of toppling over, and he either drags his feet after him, as in the ordinary forms of paralysis, or brings his heels down with a rap, as in Locomotor Ataxia. As these troubles increase it becomes altogether too much of a tax upon his attention to keep his equilibrium and to make progress, to permit of his turning it at the same time to anything else; and if he be addressed he will stop and steady

himself upon his legs before answering, even if his questioner is walking with him. But, long before this degree of muscular failure is reached, the mental aberration will have progressed until the stage of delusion has been attained. These delusions are themselves distinctive of General Paresis, for, although, in what the lovers of extended classification have called "ambitious mania," somewhat similar ones are found, there is, in fact, a perceptible difference between them. The one characteristic in which these delusions agree is their exaltation; preserving that, they spread themselves over the widest possible field, not only when looked at in different persons, but at different times in the same person. They are, like delusions of all kinds, primarily connected with the patient personally; if extended to include others, it must be secondarily, as for instance, because a patient imagines himself to hold some certain rank, he must extend his imagination to recognize some certain other and inferior rank, in those surrounding him.

Naturally, therefore, these exalted delusions have reference, first, to the patient's person, his health, and his powers of endurance and action; and so he always, to begin with, thinks himself robust and hearty. His answer to your inquiry as to his condition is always a positive assertion of his well being; and this he continues long after his advancing disease has deprived him of the strength to leave his bed, and almost of the power to articulate an answer at all. As a sequel to this belief in his vigorous health, comes an equally decided estimate of his bodily powers and prowess; he is the greatest pugilist, pedestrian, oarsman, ever known; he will spend hours in training himself for a boat race, totter up and down the ward in the firm belief that he is walking a thousand miles in a thousand hours, and give you the politest possible invitation to make personal

test of his capabilities as a boxer. But his powers and attributes are not confined to mere animal superiority—mentally he is the most brilliant of men. There is no language with which he is unfamiliar, no branch of study in which he is not proficient, no philosophical experiment which he has not successfully undertaken, no discovery which is not his own. And the legitimate rewards of such perfection of body and mind have not failed to follow him—renown, wealth, honors, are his without measure or number; he is not king of a single dominion, but emperor of the whole world; he is not as rich as anybody else, but richer than everybody else put together. Delusions of this extent are not always reached at once. Sometimes they come with the progression which is so distinctive of the disease in all its aspects. I have one patient who illustrates this remarkably. He always addresses me in the same form, saying, “I am the agent of the Empire Line, and they pay me—,” but the end of his sentence has changed from time to time, and it has now gotten up to “two million dollars a day.” They are not generally so definite as this even, and express their wealth or their power by comparisons, oftener than by definite sums or titles. “I am richer than Rothschild,” or “Astor,” are common assertions. I have myself observed more tolerance of the delusions of others, even amounting to belief in them, among paretics, than in the insane of other classes. Ordinarily an insane man will recognize wherein his neighbor is deficient in sense, while strenuously maintaining his own soundness, but a paretic’s delusions are extensive enough to embrace all mankind. When one of them has given a summary of his wealth, the others, if appealed to, will often indorse his statements, but always adding that wealthy as he is, *they* are still more so. One of my patients, indeed, makes this

belief the basis for his own extravagant delusion, for, accepting the claims to wealth made by his companions as true, and having been before his admission a professional gambler, he tells me in confidence that he is about to open a faro bank in the ward, and so possess himself of *their* millions. In another instance a mutual confidence in each other's strict accuracy of statement led two gentlemen to form a co-partnership having for its object the conveyance to certain ports by one of them who owned "all the steamships in the world," of "all the dried apples in the world," in which the other had established a corner. Prominent differences between the delusions of the general paretic, and those of the sufferer from insanity of some other form, are seen in their greater extravagance, their want of permanency, and in the absence of sequence and co-ordination. Most delusions in the maniac and melancholic are as to things which might possibly occur or exist. They are comparatively fixed and persistent, and, starting from false premises, they have thereafter a natural and logical connection. But the delusions of the paretic are absurd and impossible, they vary constantly, and they are utterly contradictory and incompatible. The former, too, will maintain the truth of their delusions with keenness and shrewdness of argument, and will endeavor to explain differences, and reconcile them with facts. But the paretic does not detect incongruities, and will not argue, but simply reassert. One patient called himself the Duke of Buckingham, and claimed to have been elected President of the United States, and when reminded that the latter office was only open to natives of the country it did not embarrass him in the least, or lead him to alter his pretensions.

During all this time the patient is generally possessed of a keen appetite and sleeps soundly, and it

is not uncommon for him to gain considerably in weight. The mental change increases, sometimes bringing the patient into a condition of complete dementia, but oftener preserving the more active character, of which these delusions give evidence, until the end. Physically the changes progress until death is reached by simple exhaustion, due to the increasing muscular paralysis, unless it occur sooner, as it often does from intercurrent diseases, pulmonary especially, or from the convulsive seizures which characterize the disease. These seizures are usually epileptiform in character, but sometimes apoplectic, when they are liable to be followed by paralytic evidences of longer continuation. In their commoner form, however, they are usually but light attacks, leaving little apparent effect, and that of a transitory nature. Such is in brief a summary of the more prominent features observable in the commencement and course of an attack of General Paresis; and this leads us to a review of certain of its characteristics that are of interest.

Much of the controversy regarding the disease has been upon the question whether priority in appearance is to be accorded to the mental or physical symptoms. The general tenor of opinion is now decidedly in favor of giving the first place to the mental, though admitting that in exceptional cases the order of precedence may be reversed. The point is not a very important one at best, and decision upon it is embarrassed by the fact, that the testimony upon which it is based must almost always come from unpractised observers, who naturally overlook the more subtle physical changes and regard the mental aberration as the starting point. In almost all the patients admitted to the asylum, mental irregularity is asserted by the friends to have been the initiatory abnormality. Doubtless it

was the first *observed*; whether it was the first *existent* is another question. If the actual commencement of disease could always be observed, *and appreciated*, it would probably be found that the two classes of symptoms were simultaneous or nearly so, in their invasion.

A curious point in the history of the disease is its gradual extension from one country or locality to another, and its gradual increase in localities where it has once appeared. Of its history in any one locality it may be said that statistics show an uniform order of progression, which may be recognized by certain salient characteristics.

Taken in order they may be stated as—

First. The appearance and recognition of the disease in male patients.

Second. Increased frequency of occurrence in male patients and appearance in female.

Third. Increased frequency of occurrence in both sexes (in greater proportion than the increase of ordinary forms of insanity) and increase in the proportion of females to males attacked.

Fourth. Departures from ordinary rule in various points, such as duration of the disease, age of patients attacked, &c.

In France, where the disease was first recognized and described, I believe its history shows this sequence, though I have been unable to test the truth of the belief by the examination of a sufficient number of statistics. In Great Britain and in our own country, and in different localities of each, it has certainly been, and is still being followed. In the former country the recognition of the disease antedates its recognition in this country, by about thirty-five years; or, in round numbers, it has been known in Great Britain for a

period twice as long as it has been known here. To test then its relative frequency in the two countries, by statistics which are available for examination, during the past three years, we find that in Great Britain the percentage of cases of paresis, relatively to those of insanity of all kinds, is fourteen and three-tenths per cent. among males, and two per cent. among females; while in this country the proportions were four and one-tenth per cent. and four-tenths of one per cent., respectively. Of deaths among the insane, in institutions, during the same period, in Great Britain twenty-five and a half per cent. in males, and twelve and a half per cent. in females, were from General Paresis; while in this country that cause was operative in nineteen and four-tenths per cent. of deaths among males, and five and one-tenth per cent. among females. On this continent, a difference no less striking is found to exist, when the reports of asylums comprised within different areas are examined, and the history of the gradual extension of the disease from the sea-board, and its rapid increase in localities where it has once made its appearance, emphasize the conclusions we have drawn as to its general course.

Its first recognition here dates back to 1843, and was at the hands of Dr. Luther V. Bell of the McLean Asylum, near Boston, who, after seeing the disease abroad, detected it within the three years preceding his report, in fifteen cases, of whom one was a female, and of whom all died of the disease. Four years later Dr. Pliny Earle, then of Bloomingdale Asylum, in this city, reported several cases of the disease, and a similar report came from Dr. Brigham of the State Lunatic Asylum in Utica. Later still, Dr. Ranney, of the Asylum on Blackwell's Island, described several cases among its inmates. Thence the disease has gradually

come to occupy a place in the statistical tables of all asylums in the neighborhoods named, and to appear from time to time in a greater number of the reports coming from a steadily increasing distance. In 1866, in a paper read before the State Medical Society, Prof. John P. Gray, Superintendent of the State Asylum at Utica, illustrated a very complete resumé of the then existing views upon the subject, by the citation of a number of cases selected from a total of one hundred and nineteen admitted to the Utica Asylum during the sixteen years immediately preceding. At the present date General Paresis is the form of disease in a large number of the insane, in institutions in the eastern and middle States, while in those of the southern and western, it is comparatively rare. During the recent meeting of Superintendents of Insane Asylums, conversation turning upon the subject, Dr. Kempster (who from former service in the Utica Asylum is necessarily familiar with the disease,) stated that he had seen but one or two cases since his removal to Wisconsin; and several Superintendents from the west and south, remarked that the disease was unknown in their neighborhoods, and that they had never seen a case.

Examination of the reports of asylums in those portions of the country, confirm these statements. In very few of them is Paresis admitted to a place in the classification of insanity. One gentleman uses the term, but places no cases beneath it, and adds that he uses it only to make his tables conform to those of other institutions, and that he has not seen the disease in that under his own charge. Others mention the disease only to bear similar testimony as to their want of familiarity with it, and concerning its non-existence in the localities in which they severally reside. The sub-

joined table, being a condensation of statistics of American Asylums for the past three years, (covering a total of nearly sixteen thousand patients.) will illustrate the comparative immunity from General Paresis enjoyed by certain territories.

		STATES.			
		Eastern.	Middle.	Western.	Southern.
Percentage of Paretics to whole number of admissions.	Males	4	8 $\frac{6}{10}$	1 $\frac{7}{10}$	1 $\frac{1}{10}$
	Females	0 $\frac{9}{10}$	0 $\frac{4}{10}$	0 $\frac{2}{10}$	0 $\frac{1}{10}$
Percentage of deaths from Paresis to those from all causes.	Males	21 $\frac{2}{10}$	23 $\frac{4}{10}$	9 $\frac{3}{10}$	7 $\frac{3}{10}$
	Females	4 $\frac{8}{10}$	2 $\frac{9}{10}$	1 $\frac{1}{10}$	2 $\frac{6}{10}$

The increase in frequency of occurrence of Paresis, in a given locality, is illustrated by the fact, that the number of cases of the disease admitted to my own Institution, in each of the past three years, has been respectively thirty-four, fifty-five, and seventy-two; the number of deaths of paretics, fourteen, forty-one and forty-four. This special increase, and indeed all statistics which tend to show such increase, may be explained to a certain extent by the fact that greater familiarity with the manifestations of the disease has conduced to greater facility and certainty in its diagnosis. Thus, since my connection with the Asylum, fifteen patients with Paresis have returned to it, who had, prior thereto, been discharged as cases of insanity of other forms. But with all due allowance made on this account, there is still abundant evidence that the disease is steadily and rapidly extending.

The causation of the disease is a subject upon which different opinions are held, and no one opinion is sus-

tained by convincing arguments. At one time, one cause has been thought to be the potent one; at another time, another. Only one thing can be assumed as settled, and that is that heredity must be looked upon as the great predisposing cause in this, as in the other varieties of insanity. Of one hundred and nine patients regarding whose ancestry fairly complete particulars could be obtained, thirty-nine revealed a history of insanity in one or other of the branches, thirty of other nervous diseases, twenty-two of intemperance in parents, and in fifteen cases the record was unfavorable regarding both branches. In turn prolonged intellectual effort, intemperance, venereal excesses have been cited as the distinct determining agent in the production of the disease. But the fact that it attacks men of all grades of mind, and chiefly indeed those of a low order of intelligence and education, negatives the first proposition; and the occasional occurrence of the disease in persons of perfectly correct habits, and addicted to no vicious indulgences, shows that such indulgences, though actual can not be the essential causes. It is true that a great majority of the victims of the disease have been noted for their addiction to dissipation of some kind, and where this has been long continued, and existent at a time sufficiently long prior to the recognition of the disease, it is impossible to deny its claim to influence in its production. But this is not always the history; often it is of loose habits, suddenly assumed, shortly before the supposed inception of the disease, and contrasting with a former life of steadiness and propriety of conduct. Then the question arises (as it has arisen regarding most of the assigned causes of insanity, and to the ultimate exclusion of many of them and especially of the so-called "moral causes," once so generally deemed effective,) whether the alleged cause is really a cause at

all, or not rather an effect; whether, in other words, the insanity did not precede the drunkenness (if the excess takes that form,) and lead to it, and not the reverse order of procedure. Change of character is the prominent symptom of commencing insanity of other forms, and there is scarcely sufficient ground for assigning it another function or significance in this. By the facts ascertained regarding patients in the asylum, the belief as to the influence of alcoholic intemperance is strongly sustained. One hundred and sixteen of one hundred and fifty-five patients give a history of habitual intemperance, while all but ten of the remainder claim (or their friends for them) the designation of "moderate drinkers," the word "moderate," if the truth were known, being probably a very mild and insufficient indicator of the real amount of customary indulgence.

Of excess in the direction of sexual indulgence the influences are scarcely less perceptible; where reliable particulars can be gained, they almost uniformly show such indulgence. Wives or mistresses of paretics, when they are not reticent upon the subject, tell stories of extreme sexual ardor, and of acts of coition repeated with astonishing frequency; and in these wives and mistresses there is a certain appearance of animal vigor and sensuality which I have come to look upon as a diagnostic sign almost as valuable as is the appearance of the paretic himself.

At one time syphilis was asserted to be the cause of the brain changes finding expression through the symptoms of paresis, but though probably an occasional cause, it is certainly not the only one, and the attempt to assign to it a sole, or even a special importance has been virtually abandoned. Syphilis has been recognized in forty-five cases of General Paresis out of one hundred and fifty five admitted to the asylum. Examination of

the assigned causes of Paresis in the cases admitted leads the attention to two other influences—sunstroke and injuries to the head. Of eighty-three cases the former was alleged as the cause in twelve, and the latter in twelve. But sexual indulgence was the assigned cause in the largest number of cases, forty-five in all, while the remaining fourteen were attributed to various causes, opium-eating, lead-poisoning and otorrhœa among the number.

All that it is safe to assume then regarding the causes of General Paresis, in the present state of our knowledge, and pending the progress of pathological study, is, that, in common with the other forms of insanity, it finds its subjects mainly among those in whom there is an hereditary tendency toward nervous disease; and that so far as immediate causes are concerned, while the disease undoubtedly attacks a few who have no such vices, and many in whom the relation of such vices to the disease—whether that of cause or effect—is not determined, yet the fact that in a conspicuous proportion of cases attacked there is a history of profligate and vicious indulgences justifies the belief that such indulgences are operative as the most frequent, if not the sole determining influence.

A characteristic of General Paresis which has been observed from its earliest recognition is its selection of the male sex as its subjects, in the very large majority of cases. Indeed, early in its history, writers upon the subject were inclined to regard the disease as appertaining only to men, but in course of time indubitable cases occurring in females came to be recognized and recorded, and now we know that it is a disease to which females, in common with males, are liable, although in very much inferior degree. There is a very appreciable difference in the matter of localities in this regard also,

in some the number of women attacked bearing a much larger proportion to the whole number than in others. Thus, in English asylums twenty-five per cent. of the deaths from General Paresis were of women. In this country, on the other hand, the proportion of women to the entire number of both sexes was, of the admissions eight and three-tenths per cent. and of the deaths twelve per cent. Taking this particular locality, the city of New York, we find that the statistics of the two public asylums for the past three years compare as follows: my colleague, Dr. Parsons, Superintendent of the Asylum for Females reports seven admissions of paretics in a total of one thousand three hundred and thirty-five, and fourteen deaths in a total of two hundred and eighty-eight. In the Asylum under my own care, and receiving only male patients, one hundred and sixty-six of the one thousand two hundred and thirty-eight cases admitted during the same period have been classified as general paretics; while of four hundred and two deaths, ninety-nine were of patients suffering from that disease. In other words, insanity has taken the form of General Paresis in twelve and six-tenths per cent. of the male and five-tenths of one per cent. of the female patients entering the Asylums, and in twenty-two and one-tenth per cent. of the males and four and nine tenths per cent. of the females dying therein.

These facts have a bearing upon the question of causation also. That the disease is relatively rare in the sex which is less given to alcoholic intemperance, and upon whose economy excessive sexual indulgence has less effect, is a point in favor of the potency of these irregularities in its determination. Further weight is given to the theory by the greater prevalence of the disease in countries and districts, and among classes, where the use of spirituous liquors among women is

commoner; and still further from the fact that the investigation of the former condition of the females attacked reveals commonly the history of dissolute practices, and frequently of professional prostitution.

In the matter of age, paretics follow the general rule which makes insanity a disease especially of middle life, affecting but rarely either the very young or the very old; and they follow it somewhat more closely than sufferers from other forms of the disease. Of one hundred and fifty-five cases admitted to the asylum sixty-six were between the ages of thirty-five and forty-five, while thirty were between twenty-five and thirty-five, and forty between forty-five and fifty-five. Only four patients were under the age of twenty-five, and of them the youngest was twenty-three. Thus far former statements as to the age of paretics are confirmed; but another generally accepted belief that the disease was never seen in patients over sixty, is not substantiated by our observations. Ten of our patients who died were between their sixtieth and sixty-fifth year, and two had passed the latter age, one being sixty-six and the other sixty-seven.

In two respects which are curious enough to deserve mention at least, examination of the asylum statistics reveals a departure in the case of the paretics from the general rules relating to other patients. In the first place, as regards their civil condition, only a minority of the other patients were married men—thirty-three and a half per cent. in all—while of paretics over eighty-one per cent. were married. In regard to nationality, natives of this country form but twenty per cent. of patients suffering from insanity of other forms; and thirty-six per cent. of those having General Paresis.

As to prognosis, there seems to be no fair ground as yet for anticipating any ending but death, where the evi-

dences of the disease are unmistakable. The few cures that have been from time to time reported are at best doubtful, either their history admitting the suspicion that their subjects were not really paretics, or the short period during which they have been kept under observation after discharge, rendering it likely that the apparent restoration to health constituted simply a remission of the disease, and not a recovery from it. I have not seen a case in which recovery has taken place, and *have* seen, returned to the asylum, several cases in which recovery had been claimed by others. The remissions which are frequently seen in the course of the disease, are very apt to give rise to false hopes of, and false belief in, recovery. To an unpractised eye every trace of the disease seems to have disappeared, and although, in most cases, one accustomed to their observation will find some slight trace remaining—a little difference in the pupils, or a little tremor of the lips, or difficulty of articulation—there are a few cases where even these evidences are wanting. But relaxation of the regularity and discipline of asylum life, and especially the endeavor to resume former pursuits will inevitably rekindle the disease, and the patient's relapse will speedily follow. So that, if the diagnosis be positive, there is no good reason that the prognosis should be less positive; and though the prophecy of death may appear for a time to have been an erroneous one, the patient who has so markedly improved will soon again retrograde, and confirm the verdict.

As regards the duration of the disease, either the opinions of observers have been modified of late, or else it is not so rapidly fatal as it once was. Formerly, it was commonly spoken of as terminating usually in a very few months, and three years was assigned as its utmost limit in rare cases. *Now*, three years is named

as the *average* duration, and many cases are recognized as having endured more than twice that length of time. Of eighty cases terminating in death in the asylum, and regarding the date of invasion of which reliable information was obtained, one died in the first year, seventeen in the second, fifteen in the third, twenty-four in the fourth, thirteen in the fifth, and ten not until the sixth year. Of those remaining in the asylum, two have entered the sixth year. I have not known a case in which death was postponed beyond the sixth year following recognition of the symptoms of the disease.

Death occurring from Paresis uncomplicated, comes in one of two ways—either gradually through the extension of the paralysis to the respiratory muscles, and the exhaustion attending the disease, or suddenly by one of the epileptiform convulsions. The former is much the more common mode of death. Pulmonary complications, too, are not infrequently the cause of death in paretics. Of eighty-five deaths of paretics in the asylum, fifty were from the gradual exhaustion attending the disease, seven from convulsive attacks, and twelve from pulmonary diseases, the remaining sixteen being due to various other complicating affections.

The influence of phthisis in coloring the symptoms of the disease has been observed by Dr. Clouston and succeeding writers. It has been well marked in cases presenting that complication admitted to the asylum, in the appearance of a more decided melancholic element, tempering the general hilarity and the extravagant delusions; and amounting at times to positive depression, coupled with suspicion of others and ideas of persecution. But through it all the characteristics of paresis run, plainly distinguishing it from melancholia proper. The paretic with phthisical and melan-

cholic elements affecting his disease, will accuse others of poisoning him or stealing his money, but he will go on to tell how he is going to sue for damages and recover millions of dollars.

The changes in the temperature of the body observable in General Paresis, have formed the subject of some interesting experiments instituted by Dr. MacLeod, and quoted frequently by subsequent writers. Although detailing the results found in but a single case, the gentleman named mentions that other cases coming under his care have presented similar results, and from these results forms a series of deductions the most important of which are—

“That among the symptoms of General Paresis, there is always a higher temperature in the evening than in the morning.”

“That the thermometer shows the progress of the disease when it can not be satisfactorily discovered by any other means.”

“That in many sleepless and destructive patients, the temperature is higher than it is in those who are quiet and easily managed.”

“That the higher the temperature, and the greater the difference between the morning and evening—the increase being in the evening—the greater the mortality.”

Our own observations, taking account of sixty patients with General Paresis, and excluding those having complicating diseases capable in themselves of producing such variations, do not bear out the claim of these rules to be regarded as absolute. They revealed considerable contradiction between different cases, and the average of differences between the morning and evening temperatures amounted to but half a degree in cases assuming the sthenic form, while in those assum-

ing the asthenic form the average of the evening was actually half a degree *lower* than the morning. The only decisive results regarding differences of temperature, which we have been able to obtain, have relation to the occurrence of periods of maniacal excitement and of convulsive seizures. In each instance the temperature has been observed to rise before the attack, and to fall markedly immediately after it. Fifty cases give an average difference of one degree between the temperature before and after a maniacal exacerbation, and of a degree and a half between that before and after a convulsion.

The abnormalities affecting the appearance of the eye are among the most distinctive of the evidences of General Paresis. The changes usually observed, as has been mentioned in describing the symptoms of the disease, are, first, an uniform contraction of the pupils, followed by their unequal dilation, with which inequality is often associated irregularity. Of the one hundred and fifty-five cases examined in the asylum, contraction was ascertained to have been observed in the beginning in one hundred and twenty-two, the others being doubtful. Of these one hundred and twenty-two, eighty had become subsequently dilated. In forty-one cases the right pupil was most largely dilated; in thirty-nine the left. An attempt was made some years since, by Austin, to establish a connection between the relations of the pupils and the preponderance of maniacal or melancholic symptoms, he asserting that where the left pupil was the larger, depression would be the predominant characteristic, and where the right, elation. No plausible reason for such a difference could well be assigned, and subsequent writers have generally ignored or disputed the claim, or even ridiculed it. From an examination of eighty cases in the asylum, in which

there was a perceptible tendency in one or the other direction, it would appear as if there was something in the theory, for of the melancholic cases the left pupil was the more dilated in thirty, and the less in only eight; while of the maniacal the right was the larger in thirty-three, and the left in but nine. It was observed also that the dilation in both pupils was greater in cases having a tendency toward depression than in those with an opposite tendency. But while unequally dilated pupils form strong corroborative evidence of the existence of General Paresis, they are not necessarily conclusive, for they are found in a few instances in patients suffering from other forms of insanity, and even in the sane. Out of curiosity, in the same period in which the figures just given were obtained, observations were made of the pupils of other inmates of the asylum, and also of a number of sane persons, and unequal pupils were found in eighteen of the former, and fourteen of the latter. But in almost all of them, unlike the cases of paresis, some other means of satisfactorily accounting for the peculiarity existed. Thus, among the sane, the difference was congenital in one case, attributable to mechanical injury in eight, and the result of overwork of one eye (with the microscope or the engraver's glass) in five. Of the eighteen insane, ten were cases of acute mania and eight of melancholia; and in four of the former and three of the latter there were other indications that rendered their ultimately developing into cases of General Paresis extremely probable. Others were traceable to injury or strain, and but four were unaccounted for, the failure being due, probably, to lack of information as to antecedents. The irregularity of pupil so often added to inequality, is due to the folding in of the edge of the iris. Such irregularity was

found in forty-five cases in the asylum, affecting both eyes in twenty-five, the right alone in fifteen, and the left alone in five.

A peculiar affection first described by Professor Hammond under the name "athetosis," and defined by him as "mainly characterized by an inability to retain the fingers and toes in any position in which they may be placed, and by their continued motion," has not, as far as I am aware, been before spoken of as a frequent concomitant of General Paresis. We have observed it in quite a number of cases, the toes being affected more generally than the fingers. Rigid flexions of the wrist and fingers have been spoken of by former writers as common in cases of General Paresis, but these we have not found. Where there has been flexion in our cases it has been associated with convulsive movements. Rythmic contractions of the smaller muscles of the face have been observed in twenty-five cases, and in twelve they have been apparent also in the masseter and sterno-cleido-mastoid. The cases described by Professor Hammond and other writers upon the subject of athetosis have so much in them suggestive of the existence or approach of paresis—epileptiform seizures, difficulty in articulation of certain words, impairment of memory, for instance—that, in view of its appearance in so many cases of recognized paresis, I am inclined to the belief that it may possibly be but one of other changes due to the lesions of the latter disease.

A curious little point in the diagnosis of the disease, mentioned first, I think, by Sankey, is the fact that the answer "first-rate," is that ordinarily returned by patients, when the question how they are, is asked them. I have tested it frequently in going through the wards, and have often received that answer from as many as eight or nine out of every ten paretics spoken to.

The subjects of General Paresis are very likely to come before the courts; and, as might be expected from the nature of their delusions, the act of which they are accused is generally some form of theft. Deeds of violence are more rarely committed by them; they are ordinarily good-humored, and indisposed to quarrel; and if they *do* attack others, it is from the delusion that their power is not deferred to, or their rights of property not respected. Thus, in the case of one patient under my care, his arrest upon a charge of assault, first led to the recognition of his insanity and his transfer to the asylum. But the assault was upon the cashier of a bank, and inquiry revealed the fact that the patient had, under the influence of parietic delusion, entered the bank and drawn and presented a check for \$500,000, and that the assault upon the cashier had followed his refusal to honor the check.

Petty thefts are the most common offences calling for the determination of the medico-legal relations of general paretics, and they are committed by the patient under the delusion that what is taken is his own property, that his exalted position gives him the right to help himself to the property of others; or else that he has ample wealth, and will pay at any time for the article appropriated. In the other instances coming under my own observation, where the transgression of the law was of a different nature, the offence was arson or attempted arson; but here equally the overt act was the product of delusion of the parietic type, for the patients, imagining their former residences and appointments to be out of keeping with their acquired dignities, proceeded to burn them up as a convenient preliminary to the provision of more suitable and imposing quarters. I speak here only of those cases where the question of responsibility for the graver

criminal acts is involved. In many other cases arrests for intoxication, disorderly conduct, or indecent exposure of person, first bring the paretic under suspicion of insanity, and lead to the recognition of its existence and to his sequestration. The boisterous behavior and the indecencies are frequent and direct outcomings of the mental disturbance; and the intoxication may be actual or merely the interpretation given to the symptoms of insanity, by the policeman who happens to make the arrest. Indeed, most of our paretics come to us after arrest, and perhaps sentence, for intoxication.

A brief allusion to the pathological anatomy of the disease, with which I now conclude, I condense from a carefully prepared summary of existing knowledge and belief upon the subject kindly furnished to me by Mr. Theodore Deecke, the Special Pathologist of the State Asylum, at Utica.

There is no pathological condition hitherto observed in the nervous centers which has not been occasionally found in paretics. The changes, as death may occur at any of the progressive stages of the disease, are simple or complex, limited to certain parts, or involving more or less the whole organ. In the annals of the disease, it is true, cases have been reported by authorities, in which no lesions of the central organs at all have been noticed. The remarkable decrease, however, in the number of such cases during the past six or eight years, has greatly diminished their significance. From an anatomical point of view the following names given to the disease, indicate the most prominent features of the lesions observed by different authors: arachnitis chronica, (Bayle;) meningitis chronica, (E. Meyer;) Periencephalitis diffusa, (Calmeil;) cerebritis corticalis generalis, (Calmeil;) encephalitis universalis chronica, meningo-cerebritis, (Belhomme;) and atrophia cerebri,

(Erlenmeyer.) Abnormalities of the bony teguments of the central organs are not unfrequently found. The dura-mater is in one-third to one-half of the cases seriously affected; the pia-mater and the vascular system more or less in all cases, and the neuroglia and the nervous elements in proportion to the progressive stages of the disease.

The most characteristic anatomical feature of the disease, in its last stages, is an extensive atrophied condition of the nervous elements of the central organs which closely resembles that observed in higher grades of senile dementia, and we may regard these alterations as the result of premature senescence.

If we look more closely into the nature of the lesions observed, and their origin and import, the condition of the dura-mater will first attract our attention.

In one-third to one-half of all cases, the inner, and more rarely the outer surface of this membrane is the seat of an inflammatory, organized, exudation, formerly known as "*hæmatoma duræ matris*," and described by Virchow under the name of "*pachymeningitis interna hæmorrhagica chronica*." The exudation forms a very vascular pseudo-membrane, sometimes of considerable thickness, (up to half an inch,) which consists of from two to twenty membranous layers of different colors, red, green, yellow, reddish brown, from numerous extravasations of blood elements in all stages of decomposition and transformation. Sometimes, after extensive hæmorrhages, regular blood-cysts are formed; or the coloring matter of the blood is absorbed, and the cysts contain a serous fluid. The most common seat of these exudations is the convex surface of the brain, over the frontal lobes; and occasionally they extend downward to the base of the brain. The new formation, consisting of a very delicate, loose, fibrous connective tissue,

(of a gelatinous consistence in the more recent layers,) is extremely vascular. The vessels themselves are large with numerous anastomoses, their walls are thin, and they are the sources of frequently repeated hæmorrhages, especially between the suppurating layers of the pseudo-membrane. Of the causes of these inflammatory exudations, little is known. The majority of cases will be found in connection with chronic alcoholismus while some specific forms are of syphilitic origin.

The effect on the brain is undoubtedly by a gradually increasing, and when hæmorrhages occur, by sudden pressure. The convolutions beneath the exudation present all the evidences of interrupted circulation and atrophy.

The pia-mater in nearly all cases shows some abnormal conditions; either it is opaque and milky, especially along the course of the veins, from fatty and pigmentary deposits in the lymphatic spaces, or from cell formations (round cells) in its meshes, or it is studded with small tumor-like eruptions consisting of epithelium cells (Bayle, L. Meyer,) or it is raised, especially between the convolutions, by purulent exudations. In the majority of cases, the pia-mater adheres to the cortex cerebri, and the adherent parts of the cortex contain nuclei and round cells which extend downward into the perivascular spaces.

The most extensive and constant lesions in the earlier stages of the disease are presented by the vascular system of the brain. In the beginning an abnormal dilatation of the vessels is a constant occurrence. This is followed by an atonic condition, obliteration of the capillaries and distention of the lymphatic sheaths surrounding the veins, by the extravasation of blood corpuscles, the remains of which may give rise to various new formations and degenerations. In some cases the

adventitia is filled by cell formations of irregular and spongy texture; in other cases cyst-like dilatations are found of considerable size, visible to the naked eye and presenting the so-called *Etat criblée* of French authors. Proliferation of nuclei and granule cells along the course of the vessels is also of frequent occurrence. The vessels themselves show a fibrillous or glassy degeneration of their walls. The capillaries in extensive areas are found calcified and disintegrated.

In connection with these alterations of the vascular arrangements and in proportion to their extent the neuroglia and the nervous elements are invariably involved.

The proliferation of the nuclei of the neuroglia, and the transformation into a very delicate fibrillous connective tissue and final induration, with a secondary degeneration of the ganglion cells, have been described by Rokitansky as constant phenomena in the spinal marrow and in the brain of paretics.

Other authors have observed "an increase in the amount of the inter-fibrillar connective substance of the medullary columns;" "a fibroid metamorphosis of the nerve-cement;" an "inflammatory induration" or "sclerosis" of the white substance.

Besides these, colloid, amyloid and calcareous degenerations of the neuroglia are described, and fatty, colloid, pigmentary and calcareous degenerations of the ganglion cells. Of these the fatty and pigmentary infiltrations are more frequently confined to the ganglionic centers of the spinal marrow, to the cells of the large nuclei of the medulla and to those of the pons Varolii, optic thalami and corpora striata.

The ganglia of the convolutions, especially those of the convexity of the brain, are the seat of calcifications and of fatty involution.

The increase in the amount of the inter-fibrillar substance, or the so-called "simple grey degeneration," most common in cases of paresis, with tabetic symptoms, is frequently confined to the white columns of the cord, while the inflammatory induration or sclerosis extends over the whole substance of the nerve centers.

In the expositions of different authors some one or other of the alterations enumerated plays the most important role.

No one of them, however, has proved to be a primary morbid affection, or to be peculiar to, or invariably connected with paresis. In fact, we may say that they all represent only different stages of atrophy and necrosis of the tissues, or in other words, that they are the result of a *diffuse but slowly progressing atrophy and necrosis*. By their *diffuse* character the lesions observed in paretics are distinguishable from those of other chronic forms of insanity. From all acute cases they differ anatomically in their products.

THE CURABILITY OF INSANITY.

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Read before the New England Psychological Society, on retiring from the presidency of that Association, at its meeting in Worcester, Mass., December 14th, 1876.

Within the last few years, calculations have been made, in more than one of the States, for the purpose of showing the pecuniary loss that has accrued to those States, respectively, from a failure to cure that portion of their dependent insane assumed to have been curable in the early stages of the disease. In one of those States, Pennsylvania, the calculation was made by the Board of Public Charities, and is based upon the estimated number that became insane in the decennium from 1864 to 1873, inclusive. The author of it assumes, upon what he considers unquestionable authority, that seventy-five per cent. of them, if properly and seasonably treated, might have been permanently restored to health and usefulness. Had this been done, the total cost of treatment, together with the support, for life, of the twenty-five per cent. uncured, would, according to his estimate, have been only \$6,540,066. On the contrary, had all these patients been placed in poor-houses, where it is assumed that seven per cent. of them would recover, the cost of support, during life, would have been \$11,272,982. "This," says the writer, "shows a clear saving of \$4,731,866." He then proceeds to show that, if the seventy-five per cent. had been cured, their earnings would have amounted to \$4,945,000 more than

they would if only seven per cent. had been cured. Adding these sums he obtains a total of \$9,676,866, "a gain," he says, "of that much to the wealth and power of the community." Having completed the calculation, he says, "we urge a very careful attention to, and also criticism of the above demonstration."

But a few months have elapsed since, in an official report of the Commissioner of Insanity in Vermont, it was alleged, as a condemnatory fact against the hospital for the insane of that State, that the proportion of recoveries among the patients has recently been less than it was in the earlier history of that institution. In view of the two main propositions of the foregoing paragraphs, it has appeared to me that a review of the subject of the curability of insanity might not be wholly useless at the present time.

The "demonstration," a criticism of which is invited by the Board of Public Charities of Pennsylvania, will not suffer, as an intellectual process, either in its logic or its mathematics, from the closest scrutiny. The serious question in regard to it is, are the elements of the calculation true? If either of them be false the deduction from them can not be otherwise than untrue. Although not directly so stated, it is evident that the seventy-five per cent. of assumed curables relates to *persons*, and not to *cases*; that is, that the author of the "demonstration" believed, or appears to have believed, that three-fourths of all the men and women who become insane, can be permanently cured. The truth of this assumption is necessary to the truth of the deduction at which he arrives.

The belief that mental disorders are thus largely curable is not entertained by the Board of Public Charities of Pennsylvania alone. It has become pretty widely prevalent among persons interested in the sub-

ject of insanity, but not, themselves, engaged in the treatment of the insane. Some of these persons entertain the opinion that even a still larger proportion are susceptible of cure. It is one of the objects of this paper to ascertain, if possible, whether this belief, or opinion, is justified by the facts.

As an almost, if not entirely, universal rule, the superintendents of the institutions for the insane report the recoveries of *cases* rather than of *persons*. A *person* may be admitted more than once into a hospital, and hence make as many *cases* as the number of his admissions. As a *case* he may recover several times; and not only so, but after several recoveries, he may still die insane. His history then furnishes to the statistics of insanity several recoveries of *cases* but not one permanent recovery of a *person*. Thus, at the State Hospital at Northampton, a man was discharged, recovered, seven times, and improved, once, in the course of nine years; and subsequently committed suicide at home. Another man has been discharged, recovered, six times, on the same number of admissions, in the course of fifteen years. One woman was discharged, recovered, eight times on as many admissions, in the course of eleven years. Another, admitted six times in the course of nine years, was discharged recovered every time; and a third, admitted six times within a period of eight years, was likewise discharged, recovered, every time. These five *persons* have, as *cases*, recovered thirty-three times, and yet it is not probable that either of the *persons* has permanently recovered.

Every institution for the insane has its cases of this kind, and, as a rule, the older the institution the more it has of them, and the larger is the number of times that each of them has been discharged recovered. The most remarkable instance of the kind which has come

to my knowledge, occurred at the Bloomingdale Asylum, New York, where a woman was admitted fifty-nine times, in the course of twenty-nine years, and was discharged, recovered, forty-six times.

Dr. Joshua H. Worthington, Superintendent of the Friends' Asylum at Frankford, Pennsylvania, informs me that eighty-seven *persons* have contributed two hundred and seventy-four recoveries to the statistics of that institution, an average of a fraction more than three to each person. One patient recovered fifteen times; another thirteen; a third nine; a fourth eight; and a fifth seven. Those statistics are indebted to those five persons for fifty-two recoveries, or an average of ten to each person. So, while the uninformed reader believes that fifty-two persons recovered, the truth of the matter is, that no less than three of the persons died insane in the asylum, and consequently the cures, if any, could not, at most, have been but *two*.

The report for the official year 1867-68, of the Retreat, at Hartford, Connecticut, contains a table by which it is shown that of the four thousand eight hundred and ninety-eight cases admitted, thitherto, into that institution, only three thousand and sixty-two were of first admission. In other words, there were but three thousand and sixty-two persons. Seven hundred and seven of these were readmitted once or more, making a total of one thousand eight hundred and thirty-six readmissions. Hence, of each hundred of patients received, thirty-seven (37.48) had been there before. One person was admitted thirteen times, and thirteen persons were admitted a total of one hundred and eight times. How many of those one hundred and eight times the thirteen persons were discharged recovered, the report does not inform us; but we may reasonably conclude that it was a large majority. Yet, which of those persons was really cured?

At the Pennsylvania Hospital for the Insane, of seven thousand one hundred and sixty-seven admissions recorded in the report for 1875, only five thousand one hundred and eighty-six were cases of first attack. No less than one thousand nine hundred and eighty-one were of attacks subsequent to the first. One man was admitted on the twenty-second attack, and one woman on the thirty-third; six men and six women on the tenth attack; ninety-four persons on the fifth attack; and one hundred and seventy-two persons on the fourth. Dr. Kirkbride does not state the number of times that any of these had recovered; but if a person have a thirty-third *attack* of a disease, it necessarily follows that he had previously recovered from thirty-two attacks.

Dr. Barnard D. Eastman, of the State Hospital at Worcester, is now engaged in an analysis of the cases treated at that institution from the time of its origin. The work was begun upon the cases of females, about one-half of which have passed under review. I am indebted to him for some of the results thus far attained.

Of two thousand nine hundred and forty-nine admissions, six hundred and ninety-four were readmissions. Hence, two thousand two hundred and fifty-five persons constituted two thousand nine hundred and forty-nine patients. The readmissions were equal to nearly one-third (30.80 per cent.) of the persons.

Seven persons were admitted an aggregate of one hundred and six times, or an average of a fraction more than fifteen times each. One was admitted twenty-three times, one eighteen times, one sixteen, one fourteen, one thirteen, and two, eleven times each. One of the seven persons was discharged *recovered* twenty-two times, one sixteen times, one thirteen times, two, eleven times each, one ten times, and one nine times. Conse-

quently, the seven persons furnished ninety-two recoveries, or an average of a fraction more than thirteen recoveries to each person; and yet two of these persons died insane in the hospital, and a third is now an inmate of it, considered hopelessly insane. Thus, of the ninety-two recoveries presented to the readers of the Worcester reports, the *permanent recoveries of persons* were, at most, only *four*.^{*} Such is the chaff which, for a long period, the people of Massachusetts have been accustomed to regard as the kernel of the wheat. Very appropriately has Dr. Sheppard, of the Colney Hatch Asylum, England, remarked: "It is obviously one thing to formulate error, and another to formulate truth." What further revelations may be made in the prosecution of Dr. Eastman's enterprise, time alone can show; but, even should there be none of noteworthy importance, he may be well satisfied with these, as a full reward for his labor.

These cases of multiple admission and recovery sometimes materially affect the proportion of apparent cures for the year, as represented by the annual reports, in consequence of a resort to the hospital several times within the year of one of those cases of periodical mania, the duration of the paroxysms of which are very brief.

Soon after I became connected with the Bloomingdale Asylum, in 1844, I learned that the woman who was the subject of the remarkable case above mentioned, had been admitted and discharged, *recovered*, six times

^{*}Since the above was written, I have learned that, of these *four* persons, *one* was again readmitted, at the Worcester Hospital, January 10, 1877. The *second*, since last at Worcester, has been discharged, improved, twice, from the Butler Hospital, at Providence, R. I., and, during the last seven years, has been a constant inmate of that hospital, incurably insane. The *third* "died at home, years ago, mental state not known;" and the *fourth* "probably died at home, circumstances unknown."

within the next preceding year. In the course of 1844 she was again received and discharged, *recovered*, six times. Following the example of my predecessor, I reported these recoveries in the tabulated statistics without any textual explanation.

In the next following year, 1845, the woman was admitted and discharged, *recovered*, *four* times. In the annual report for that year, *all* the cases of readmission were mentioned, and their results given separately. There were eleven readmissions and seven recoveries; and in the context it was stated that "four of the cures mentioned in this table were restorations from successive attacks, in a case of paroxysmal mania." This case subsequently led to the introduction of the question of the proper method of reporting periodical cases, as a subject for discussion at one of the meetings of the Association of American Superintendents. After due consideration it was decided that no patient ought to be reported as recovered twice or more within one and the same year. It is evident, however, that this decision has not been universally, probably not generally, adopted as a rule of practice at the hospitals. As proof of this, in regard to one institution, we have the case of the woman who recovered twenty-two times, at the Worcester Hospital, as shown by Dr. Eastman's statistics. *Four* of her recoveries took place in one year, *five* in the next following year, and *seven* in the third year. Worcester, therefore, takes the palm from the brow of Bloomingdale, for the largest number of recoveries by one person within the course of twelve successive months. In this case, the woman, within a period of twenty years and two months, recovered twenty-two times, and spent eleven years and one month in the hospital.

In all the foregoing instances, as in many others which

might be gathered from hospital reports, the percentage of recoveries is very considerably increased by this duplication and multiplication of them in the same person; and yet, by the way in which they are generally published, the uninitiated reader has no reason even to suspect that the number of *persons recovered* is not equal to the *number of recoveries*.

Aside from the repeated admissions and recoveries of the same person, there is another influence which has an important effect upon the proportionate reported restoration of mental disorders. I allude to the special characteristics of the person reporting them,—his temperament, his constitutional organization, his psychological individuality.

How often we find the people of a neighborhood differing in opinion in regard to a neighbor alleged to be insane! How frequently the superintendents of the hospitals are annoyed by persons holding this difference of opinion in regard to patients committed to their care, one party strongly asserting the existence of mental disorder, the other as strongly denying it. In the trial before legal tribunals of cases involving the question of the sanity or insanity of a prisoner or other person, it is not uncommon for even the most expert experts to differ in both opinion and testimony, taking opposite views of the mental condition in question. In a case like this, it is to be inferred that if, when that testimony is given, the person whose mental condition is in question were to be discharged from a hospital to which he had been committed when unquestionably insane, the experts upon one side would report him *recovered*, while those upon the other would record him as *not recovered*. The individuality mentioned has sometimes, though rarely, been recognized and acknowledged in the reports emanating from the institutions for the insane.

"It has come to be well understood among those familiar with vital statistics," says Dr. D. Tilden Brown, of the Bloomingdale Asylum, New York, in his report for 1867, "that they comprise an element not easily discovered among groups of figures, but which is, nevertheless, present as a leaven more or less potent. Borrowing a term from physiology, this element may be called the 'reflex action' of the observer's own temperament, and no just estimate of such statistics can be formed, until its value can be approximately determined."

For many years I have believed, and have often asserted that belief, that of a given number of patients discharged from a hospital for the insane, the number reported as recovered might differ at least twenty-five per cent., according to the man who might act as judge of their mental condition.

The medical history of the Worcester hospital, during the seven years next preceding the 1st of October, 1875, furnishes a remarkable illustration of the uncertainty of the statistics of insanity, as originating in the source under consideration.

From September 30, 1868, to October 1, 1875, there was no known agency operating upon the people from whom the patients of that hospital are drawn, which might either increase or diminish the prevalence of insanity, or so modify it as to render it less amenable to curative treatment. About the middle of the period a change of superintendents of the institution took place. Dr. Bemis resigned the office, and was succeeded by Dr. Eastman. This occurred within the official year 1871-72, so that each of those gentlemen occupied the office during a part of that year.

The last three *entire* official years of the administration of Dr. Bemis embraced the period from September

30, 1868 to October 1, 1871; and the first three of Dr. Eastman, the period from September 30, 1872, to October 1, 1875. The statistics of admissions and recoveries in the course of each of these periods, as derived from the published reports, are as follows:

FIRST PERIOD.

OFFICIAL YEAR.	Admissions.	Recoveries.	Per cent. of Recoveries.
1868-69,	337	149	44.21
1869-70,	384	158	41.11
1870-71,	470	209	44.46
Total,	1,191	516	43.32

SECOND PERIOD.

1872-73,	407	98	24.08
1873-74,	400	71	17.75
1874-75,	362	90	24.86
Total,	1,169	259	22.16

Thus, although the number of admissions (one thousand and one hundred and sixty-nine) in the second period was but twenty-two less than (one thousand one hundred and ninety-one) in the first, the number of recoveries (two hundred and fifty-nine) was but *one more than half as great*. The proportion of recoveries of the first period is to the proportion of recoveries of the second, as one hundred and ninety-five to one hundred, or as one hundred to fifty-one and fifteen hundredths. There is, in my opinion, but one explanation of this most surprising difference; and that is, the difference in the physical and mental constitution of the two men by whom these statistics were reported. Were it possible to apply to the two sets of cases a standard of sanity, and an accurate measure of mentality, it would doubtless be found that there were as many recoveries

in the second period as there were in the first. In the expression of this opinion I desire to be emphatic, as I have too high a respect for both of the gentlemen concerned, to do or say anything which might be tortured into the appearance of injustice toward either of them.

There are yet other modifying agents which have undoubtedly acted, to some extent, in the production of the statistics of insanity, as they have in so many other departments and directions of the enterprise of mankind. The medical officers of institutions for the insane can claim no exemption from the common weaknesses of human nature. They are men "with like passions as other men." Self-interest, in some instances, and ambition in perhaps all,—that ambition, at least, which is manifest in the desire to show as fair a record and as favorable results as are exhibited by colleagues in the specialty,—have probably not been wholly inoperative in the reporting of recoveries from insanity, even though unconsciously to the persons producing those reports. These influences have constituted, and, from the very nature of things, always must constitute, an element in the solution of the problem of the curability of mental disorders.

Of all the causes which have contributed to the production of the impression that those disorders yield to curative treatment in a larger ratio than is now believed by physicians best acquainted with the subject and having the largest practical experience, the most potent has been the frequently repeated assertions of their eminent curability, by the superintendents of hospitals, and by some other writers upon the subject. In proof of this assertion, it is proposed to present a cursory history of the subject during the last fifty or sixty years, with quotations of such evidence as the annals of the period may furnish.

In the year 1820, Dr. George Man Burrows of London, England, published a small work entitled "An Inquiry into certain Errors relative to Insanity," one object of which was to demonstrate that mental disorders are more curable than was at that time generally supposed. He therein asserts, that, of all the cases which had been treated by him, both in general practice and in his private asylum, "including patients in a state of fatuity, idiocy, and epilepsy, the proportion of recoveries was eighty-one in one hundred; of recent cases, ninety-one in one hundred; of old cases, thirty-five in one hundred." He admits that he had "been much favored by an unusually large proportion of recent cases;" and in his "Commentaries," published eight years afterwards, he acknowledges that his percentage of cures "appeared by some to be doubted."

Dr. Burrows had treated only two hundred and ninety-six cases, not half so many as are to-day under the care of Dr. Godding, at Taunton. Of the two hundred and forty-two recent cases, two hundred and twenty-one recovered, and of the fifty-four old cases, nineteen recovered.

In the appendix to the inquiry, the Doctor published the statistics of the recoveries at the Retreat, at York, from 1796 to 1819. These were furnished by Samuel Tuke, and were classified according to the duration of the mental disorder. They are as follows:—

Cases.	Duration.	Attack.	Recovered.	Per Cent.
47	Less than three months,....	First,	40	85.10
45	Three to twelve months, ...	First,	25	55.55
34	Under twelve months,	Not the first,.	21	61.76
48	Under two years,	First,	12	25.00
79	More than two years, .....	.....	14	17.72

Hence are derived the further statistics that, of the ninety-two cases of first attack, and of less than one

year in duration, the recoveries were sixty-five, or a proportion of seventy-six and fifty-two hundredths per cent. Of *all* the cases (one hundred and twenty-six) of less duration than one year, whether of first or subsequent attack, the recoveries (eighty-six) were equal to sixty-eight and twenty-five hundredths per cent. The ratio of recoveries of the whole number treated was forty-four and twenty-three hundredths per cent.

The next authority to which our attention is called, is the annual report of the Retreat, at Hartford, Connecticut, for the official year 1826-27. The information contained in that report "fell upon dry and stony ground," and doubtless would have there remained, fruitless and comparatively unknown, had it not been gathered and disseminated by a traveling foreigner. Captain Basil Hall, of the Royal Navy of Great Britain, visited the Retreat on the 25th of October, 1827, and gave an account of that visit in the history of his American tour, which was subsequently published.*

"Dr. Todd," says the Captain (vol. 2, p. 192,) "the eminent and kind physician in charge of the Retreat, gladly communicated his plans, and showed us over every part of this noble establishment—a model, I venture to say, from which any country might take instruction." Upon subsequent pages he copies "extracts from the report of the visiting physicians," one of which is as follows :

"During the last year there have been admitted twenty-three recent cases, of which twenty-one recovered, a number equivalent to ninety-one and three-tenths per cent. The whole number of recent cases in the institution during the year was twenty-eight, of which twenty-five have recovered, equal to eighty-nine and two-tenths per cent."†

* "Travels in North America, in the years 1827 and 1828 " by Captain Basil Hall, Royal Navy. In three volumes. Edinburgh, 1829.

† Vol. 2, page 196.

Thus recognized and endorsed, not merely *in* Great Britain, but by a representative of that arm of her power in which has hitherto rested her confidence, as the source of her greatest pride and glory, the "report of the visiting physicians" suddenly became worthy of recognition upon this side of the Atlantic. The newspapers took it up and sent it through the length and the breadth of the land; and in this way, whatever a few physicians and others might have previously learned from the report itself, the people at large received their first impression that insanity is largely curable. By a few strokes of his magic pen, Captain Hall did what, were it not for him, would have required the labor of years.

Very soon after the appearance of this book in the United States, and while the memory of the Hartford statistics was still fresh and vivid, Massachusetts caused to be erected her first State Hospital for the Insane, at Worcester. It was opened in January, 1833. Dr. Samuel B. Woodward, its first Superintendent, came directly from the atmosphere of the Hartford Retreat. That institution was in part indebted to him for its existence. He was one of the few who took the initiatory measures for its foundation; he was one of the original directors to whom its charter was granted; and its welfare had always been to him an object of interest and solicitude.

Dr. Woodward's intellectual abilities were considerably above the average. He was cheerful and sanguine, and much interested in his specialty, which he consequently pursued with enthusiasm and entire dedication of time and thought and feeling. Both his physical temperament and his intellectual constitution were such as not only to induce, but perhaps to force him to "look upon the bright side of things," whatever might call for his opinion or action.

A man so constituted, having such antecedents and the reported success at Hartford as an example, would not be likely to present the subject of insanity, as it appeared at Worcester, in a less cheerful light than nature and truth would justify. In his second annual report, which embraced the official year terminating with the 30th of September, 1834, he wrote as follows, in his summary of the statistics of the year: "Recovered, of all the recent cases discharged, eighty-two and one-quarter per cent." The reader will please observe that this high percentage represents the ratio of recoveries to cases *discharged*, and *not* to cases *admitted*. It is believed that a non-observance of this fact, by the casual or the careless reader, was one cause of the erroneous impression conveyed to the public mind.

In his third report, the Doctor says, "Recoveries of those patients during the year ending November 30, 1835, whose insanity was less than one year's duration, eighty-two and one-half per cent.;" and, upon another page, "In recent cases of insanity, under judicious treatment, as large a proportion of recoveries will take place as from any other acute disease of equal severity." It is believed that this was the first public annunciation, in America, of the principal idea of the proposition contained in the quotation; namely, the curability of insanity as compared with other severe acute diseases.

In the fourth report, for 1836, he says, "Per cent. of recoveries of recent cases discharged, eighty-four and one-fifth;" and in the fifth, for 1837, "Per cent. (of recoveries) of recent cases discharged of less than one year's duration, eighty-nine and one-fifth."

Whatever erroneous idea may have, thus far, been inadvertently and unintentionally produced by the method of computing the proportion of recoveries upon the number *discharged*, it *ought* to have been corrected

by the subjoined extract from the report for 1838, in which the language would imply that it is computed upon the number *admitted*.

“There have been admitted, since the hospital was opened, three hundred and thirty-four cases of less duration than one year; of which, two hundred and seventy-six have recovered, which is about eighty-two and two-thirds per cent.

In most institutions, it is customary to deduct those that have not had sufficient time; this may be said of the twenty-eight recent cases left in the hospital at the end of the year; these deducted, the per cent. of recoveries will be *ninety and one-half*.

If we make a further deduction of the deaths of the cases from this class, which is also the rule in many institutions, we should increase the per cent. to about ninety-four.”

Although apparently avoiding the erroneous method of computation before mentioned, this extract well illustrates the prevalent desire of the time at which it was written to produce enormous percentages. That both reason and common sense were sacrificed to that desire, is sufficiently proved by not this quotation alone, but by others, from other sources, yet to be produced. In the second paragraph of the above extract, the reader is asked to reject all cases remaining in the hospital, although unquestionably a considerable part of them were incurable; and, as if this were not enough, he is then, in the third paragraph, invited to set aside all who have died!

If, in calculating the curability of mental disorders, all cases of mortality are to be rejected, why not in all other diseases? The principle appears as reasonably applicable in pneumonia or typhoid fever as in insanity, but it is a principle better adapted to the consolation of the physician than to the discovery of truth in science. Let it be applied, for example, to consumption and Asiatic cholera; calculate the percentage of recoveries accordingly, and behold what harmless diseases they immediately become!

In the seventh report of the hospital at Worcester, the proportion of recoveries, for the year, of recent cases discharged, was asserted to be ninety (90) per cent.; in the eighth, sixty-four patients of seventy, equal to ninety-one and forty-two hundredths per cent.; and in the ninth, ninety-one per cent. This was in the latter part of the year 1841. "The average of recoveries of cases of less duration than one year," says this report, "is now eighty-eight per cent. for the whole time (nine years,) and is as great as can be expected."

When Dr. Woodward took charge of the hospital at Worcester, there were but eight other institutions, specially devoted to the care and custody of the insane, in the United States. Four of them were incorporated, and only three—in Virginia, South Carolina and Kentucky—belonged to the States, respectively, within which they are situated. Of a majority, at least, of the eight, the chief medical officer was merely a visiting physician engaged in general practice. Annual reports were published by but a part of them; and such as were published were brief, and their circulation very limited. Thus circumstanced, there was a golden opportunity for the Doctor to disseminate among the people some knowledge of insanity and its treatment in hospitals, and thus give an impetus to the thitherto languid and lagging enterprise for the amelioration of the condition of the insane upon this side of the Atlantic. This opportunity he did not fail to seize. His very elaborate reports, abounding in statistics, as well as in other matter more attractive to the general reader, were widely circulated, and he soon became known, not only throughout the States, but likewise in Europe, and was generally regarded as the highest living American authority in the treatment of mental disorders. In the course of the ten years next following his removal to

Worcester, no less than twelve hospitals for the insane were founded and opened within the States, and seven of them were State institutions. The superintendents of some of these were men of no less ability than Dr. Woodward, and they entered heartily into the prosecution of their work. Some of the older institutions, meanwhile, had become newly and ably officered. Dr. Bell had taken charge of the McLean Asylum, and Dr. Brigham of the Hartford Retreat. A spirit of emulation was aroused, which, at length, by stimulation, became what might more properly be termed rivalry, albeit the generous rivalry of friends, and conducted, as a whole, in the love of science and under the promptings of benevolence.

We are now approaching the maximum mathematical curability of insanity. The foregoing historical paragraph was considered important, as showing some of the causes which led to it. In 1840, the Worcester Hospital had attained, as shown above, a proportion of ninety-one and forty-two hundredths per cent., and in 1841, ninety one per cent. The percentage of Dr. Burrows, as has been seen, was ninety-one.

In the report of the Eastern Asylum for the Insane, in Williamsburg, Virginia, for the year 1842, Dr. John M. Galt, the Superintendent at the time, quoted the percentages of recent cases claimed to have been cured by Sir William Ellis,* Dr. Burrows, Dr. Woodward, and, on the authority of Basil Hall, the Retreat at Hartford. He then gave a statistical account of thirteen cases of recent insanity received at the institution under his charge in the course of the year from July, 1841, to July, 1842. Six months after the expiration of that

*In his treatise on insanity, published in 1833, Dr. Ellis does not discuss the subject of curability. Probably this claim, "about ninety per cent.," was made in a report of either the Wakefield or the Hanwell Asylum, with each of which he was at different times connected.

year, twelve of them, equal to ninety-two and three tenths per cent., had recovered, and one had died. The Doctor describes this single case of mortality, and then, adopting that admirable principle of exclusion, the precedent for which, in this country at least, had been established by Dr. Woodward, says, "If we deduct this case from those under treatment, the recoveries will amount to one hundred per cent.!" "From such facts as the above," he continues, "I am led to believe that there is no insane institution either on the Continent of Europe, in Great Britain, or in America, in which such success is met with as in our own."

The considerate reader will forbear to arraign the Doctor for a deficiency of modesty. He had excelled his colleagues in the work of benevolence, and who but he could make it known? He had produced the thitherto maximum of percentage figures, including deaths; nay, more, had he not, under a recognized principle, mathematically demonstrated the curability of one hundred per cent., that is, *all* of the insane? Lest the living may not reply to this interrogation, I call upon the dead. What says Dr. Bell, of the McLean Asylum, thereupon,—Dr. Luther V. Bell, than whom, in the United States of America, no abler man, intellectually, and no more conscientious man, morally, has ever been engaged in the specialty of psychology?

"The records of this (McLean) Asylum," says he, in his report for the year 1840, "justify the declaration that *all cases, certainly recent*,—that is, whose origin does not, either directly or obscurely, run back more than a year,—recover under a fair trial. This is the general law; the occasional instances to the contrary are the exception."

These things sound so very strange at the present day, that, in order to reassure the reader, it would

appear proper to inform him that no instance is recollected, and none, at the time of the present writing, has been discovered in the books, in which the claim to have cured more than one hundred per cent., or even that more than one hundred per cent. are curable, has been advanced. Logically, perhaps, claims of that nature might have been made; because the foregoing extracts from Galt, Bell, and Woodward were written more than thirty years ago, and some of the writers of the present day apparently believe that great improvements have been made in the treatment of insanity since that time.

Although the spring-tide of mathematical curability had now apparently attained its highest point, and Dr. Galt was upon the crest of its topmost wave,—with Dr. Bell beside him in opiniative curability, for Dr. Bell entertained an inveterate dislike of the Arabic numerals as applied to insanity,—yet a further change was in reservation in the undeveloped but still immediate future. In only one short year after the recounted success at Williamsburg, Dr. Awl—there was a prophecy even in the sound of his name—in his report, for 1843, of the State Hospital for the Insane at Columbus, Ohio, thus unpretentiously but pithily announced his achievement for the year:—

“Per cent. of recoveries on all recent cases discharged the present year, one hundred.” And so the goal was won; the summit of the maximum wave of the highest possible high water point was gained! Dr. Awl, who had “studied at the feet of Gamaliel,” (Dr. Woodward,) and who was always his loyal disciple, had outrivaled, not his master alone, but all other competitors.

But Dr. Woodward, in his report for the same year, (1843,) wrote as follows:

"I think it not too much to assume that insanity, unconnected with such complications (epilepsy, paralysis, or general prostration of health,) is *more** curable than any other disease of equal severity; more likely to be cured than intermittent fever, pneumonia, or rheumatism."

Dr. Bell's report for the same year contains a general review of all the cases, "somewhat exceeding a thousand," which he had treated during his connection with the McLean Asylum, in which he says: "The best judgment I can form is, that six out of every ten discharged, including those considered unfit, those discharged with incomplete trial, and those dying prior to the event being determined, have recovered." Of those cases the duration of which was less than six months at the time of admission, he says: "Certainly nine-tenths have recovered."

After the Ohio triumph of 1843, there were indications, in some quarters, of an ebbing of the tide. Dr. Woodward, indeed, in his report for 1844, reported the recoveries of recent cases, at Worcester, at ninety-three per cent., and thus excelled his former self; but in that for 1845, his thirteenth and last, this percentage receded to eighty-nine and one-half. Dr. Chandler succeeded Dr. Woodward, and in his report for 1846, the retrograde movement was still greater than in the next preceding year, the proportion of recoveries of recent cases being but seventy-nine per cent. This recession, however, was subsequently in part recovered from, and during the ten years' administration of Dr. Chandler, the average was eighty-three per cent., whereas, during the whole period of Dr. Woodward's administration, it was eighty-eight per cent.

Even Dr. Aul never again equaled himself. The prophecy was never fulfilled but once. In 1844 his percentage of recoveries of recent cases discharged,

* Not italicized in the original.

receded to eighty-nine and forty-seven hundredths; but in 1845 it mounted to ninety-five and twelve hundredths, and in 1846 to ninety-five and thirty-eight hundredths. In 1847 it again receded, and, this time, to eighty-eight and forty-four hundredths; but only to remount, in 1848, to ninety and thirty-six hundredths; and, in 1849, as shown by his eleventh and last report, to ninety-three and twenty-five hundredths. In this report he states that the "per cent. of recoveries on all recent cases discharged in eleven years, was ninety and seventy hundredths. The reader will observe that all these proportions related to cases discharged, and his attention is called to the comments upon them, by Dr. Awl's successor, as presented upon a subsequent page.

But Dr. Awl was content with the permission to his numerals to speak for themselves. In this he was almost purely a statistician in Arabic. So far as I have learned, he neither vaunted his success, nor proclaimed the pre-eminent curability of insanity, in the text of his reports. Ardent, hopeful, joyful in temperament, he naturally presented his subject in a light sufficiently *couleur de rose*; but, for the same reason, he endeared himself to his colleagues, of whom every survivor would now exclaim: "May his genial heart still beat for a thousand years."

He would be mistaken who should entertain the belief that, throughout this period of apparent struggle for the largest numerical symbols, there was a unanimity of opinion and feeling among the Medical Superintendents of the Institutions. Yet, whatsoever might have been thought, or, in conversation expressed upon the subject, but little, if anything, appeared in the published reports discrediting either the asserted results of

treatment, or the accuracy of the method by which the numerical statistics were obtained. Dr. Isaac Ray, in the report for 1842 of the State Asylum at Augusta, Maine, wrote as follows: "Nothing can be *more* deceptive than statistics; and I have yet to learn that those of insanity form any exception to the general rule." But the first important shadow of this kind which was thrown upon the glamour of Arabic numbers, was projected by Dr. James Bates, a man of sterling common sense, the successor of Dr. Ray. In his report for 1847-48, he used the following language:

"Few things are more various, in the numerous reports which come to hand from institutions similar to our own, than what are termed *recent* cases. In general, of late years, cases admitted within one year of the attack are denominated *recent*. This would be very well, and easily understood, if such cases were continued to be *recent* cases, in the reports, until discharged. But such is not the fact. In one report which contained a table purporting to give the admissions and discharges of recent and old cases, it was seen that the recoveries, discharges, and deaths, together with recent cases remaining, were much less than stated in the admissions. Further examination showed, that at the end of each year those remaining in hospital which had become of more than one year's standing, were turned over to the department of old cases.*

"By such a course, and rejecting deaths, paralytic and epileptic cases, and perhaps some others, from the aggregate, the cures of recent cases are very conveniently carried up to ninety per cent.

*The practice mentioned may be illustrated as follows: A hospital receives one hundred (100) *recent* cases, and reports them as such. It discharges eighty (80) of them *while recent*; and, of these eighty, (80,) seventy (70) have recovered. Consequently, seven-eighths, or eighty-seven and one-half per cent. of the *number discharged*, are reported as recovered. The remaining twenty (20) of the original one hundred (100) stay in the hospital so long that their disease has existed more than a year, and hence is no longer recent. They are then transferred to *chronic cases*, and thenceforth, in all statistics relating to them, are reported as such. It is thus made to appear, that of the original one hundred (100) cases, eighty-seven and one-half per cent. recovered, when, in fact, only seventy per cent. recovered. There was a time at which this practice was pursued at more than one hospital.

"It is probable, in some instances, this rejection and pruning away of exceptionable cases might be carried so far that one hundred per cent. of recoveries in recent cases could be reported, and received with wondrous admiration by that portion of the public who are better pleased with marvellous fiction than with homely truth."

Not satisfied with this, he again expressed his opinions, and perhaps more strongly, when discussing the subject of statistics, in his report for 1849-50. Says he:

"When honestly made, they are not likely to do injury; but I am sure they are sometimes made the instruments of deception. If figures can not lie, they may mislead, by disguising the truth. For instance: suppose, at the end of each year, instead of reporting all cases as *recent* which were actually admitted within one year of the attack, I should, for the purpose of *appearing* to cure ninety per cent. of recent cases *discharged*, report only *such* as *recent* cases as had not become *old* ones by remaining with us, I might impose the belief on the *uninitiated*, that ninety per cent. of recent cases could be cured, when every man acquainted with the subject knows that no instance can be shown in which ninety out of one hundred cases, admitted in succession, no matter *how recent*, were ever cured."

About this time, Dr. S. Hanbury Smith, a man of broad culture and extensive professional knowledge, was appointed to the superintendence of the State Asylum for the Insane, at Columbus, Ohio. In his report for 1850, he presents the statistics of all the recent cases of insanity received at that institution, from the time of its opening to the 30th of November of that year; and shows that the recoveries, according to the records, and including those remaining in the hospital who were believed curable, were equal to seventy-five and forty-three hundredths per cent. "The curability of recent cases in this institution," he then remarks, "would be exactly represented by these figures, were it certain that the word *recovered*, when entered opposite a name on the books of the institution, is always

properly employed. The term has probably been applied to many cases which were only very much improved, but not in scientific strictness cured, seventy per cent. being considered by some authorities as about the limit of possible cures in recent cases."

Dr. Andrew McFarland's first report of the New Hampshire Asylum for the Insane, was for the year 1846. He classified the cases of both admission and discharge into recent and chronic, but calculated no percentage. In his third report (for 1848) he dropped that classification and gave expression to his views in the following language:—

"This is deemed a proper time and place to record a skepticism as to the value of a system of forming tables, or rather the want of system, in making important deductions, and establishing infallible percentages from extremely loose and insufficient premises, and all now engaged in the treatment of the insane appear to be arriving at the same conclusion."

The period of greatest mathematical curability had now very evidently passed; that spring-tide upon which the members of the regatta had been disporting for a number, not inconsiderable, of years, had begun to ebb, and has continued to ebb, as will be shown farther on, to the present time, when it has reached, perhaps, upon the average, very nearly the true water level.

At this point, however, it may still further elucidate our subject to show the position in regard to it which was occupied by several medical superintendents in charge of institutions during some part of the period of high percentages, but of whom little or nothing has thus far been written.

Dr. Ray, at heart, never approved the course of the advocates of mathematical curability. Upon his entrance into the specialty it is not surprising that he joined

them, but he did it under protest, and, at the very first opportunity, he threw off all allegiance to them. In his first report, which was that for the Maine Insane Asylum, for the year 1841, he classified his cases into *recent* and *old*, the former term applying to those of less than one year in duration. "I have adopted this classification," says he, "in deference to the practice now somewhat common in New England hospitals; but I must be allowed to express my conviction that the distinction is without any precise, well-marked difference, and had better be abandoned."

In giving the results of treatment, he says:—"Per cent. of recoveries of recent cases discharged in the course of the year, seventy-one;" and then, in a foot-note, he remarks as follows:—"Two of the recent cases discharged uncured, were returned to the hospital and finally discharged, cured; so that really the per cent. of recoveries of recent patients is seventy-five." In another place, he says:—"Our proportion of recoveries in recent cases, as indicated by our books, has been seventy-one per cent., though, if we make allowance for cases prematurely removed, it amounts to eighty-five per cent. which is the average of recoveries obtained in the New England hospitals generally."

Dr. Ray never *built* a percentage a second time, in the hope to make his mathematical house as high as those of his neighbors. Thenceforward both at the Maine Asylum and at the Butler Hospital, he discarded classification according to duration, eschewed percentages, and, especially at the institution last mentioned, dealt but little in other numerical statistics.

Dr. Amariah Brigham wrote but two annual reports of the Hartford Retreat. The last of these is the only one to which I have access. It is for the official year ending with the 31st of March, 1842. Before the term-

ination of that calendar year he was appointed to the superintendence of the New York State Asylum, at Utica, which was opened, under his direction, on the 16th day of January, 1843. In the report of the Retreat, he says: "The records of this, and of all kindred institutions establish the fact that insanity is a disease that can generally be cured, if early and properly treated; while it is equally well established that if the disease is neglected, or suffered to continue for two or three years, it is rarely remedied. In his first report (for 1843) at Utica, he says: "Eighty patients have been discharged. Fifty-six of these were recent cases, that is, of not more than twelve months' duration. Of this number forty-nine recovered." The percentage of these recoveries is not stated, and neither in the report of the Retreat, nor any one of the six annual reports which he lived to write at Utica, have I found any such percentage. He did not classify his cases in tabular form, as recent and chronic, and the instance just quoted is the only one in which, as regards recovery, he mentioned the numbers with such a discrimination. He was not a competitor in the regatta of mathematical curability. But in this connection, and as a matter illustrative of our subject, I copy the following from his last report for the Retreat.

"By *recovered*, we usually mean complete restoration of the mental powers. Two of the individuals discharged this year, and reported as recovered, are still very eccentric, though they do not now manifest anything that their friends call insanity, are able to attend to their affairs, and are as well as they were for several years before they were called insane.

"Some few other individuals, though reported recovered, did not, when they left us, exhibit their former mental vigor. From several of these we have heard that, at home, they have entirely recovered in this respect, or are steadily improving. With these few exceptions, those that we have reported recovered we consider completely so."

If limitations so comprehensive were given to the term "recovered" by a *moderado*, like Dr. Brigham, what might not be granted to it by an ultraist, such as were some of the medical superintendents.

In the annual presentation of the medical history of the Pennsylvania Hospital for the Insane, Dr. Thomas S. Kirkbride has very prudently and properly avoided the classification of patients according to the duration of the disease; and, although apparently a believer in the curability of insanity to an extent which would not be accorded by a large proportion of the superintendents of the present day, he has never been among the extremists, has written but little upon that specific point, and has invariably, I believe, shunned percentages in Arabic numerals. In an examination of his first fifteen annual reports, I find but two allusions to the curability of the disease, of sufficient directness and importance to come within the scope of this discussion. In the report for 1842 he says: "The general proposition that truly recent cases of insanity are commonly very curable, and that chronic ones are only occasionally so, may be considered as fully established."

In the report for 1846 the proposition is made rather more definite by the use of a percentage—perhaps the only one to be found in his reports—expressed in words. "Of all who are attacked with insanity, and subjected during its early stages to a judicious treatment, and that treatment faithfully persevered in, at least eighty per cent., will probably recover."

In his report for 1844, of the Bloomingdale Asylum, New York, the first which was issued after he became connected with it, Dr. Pliny Earle presented a table of "cases supposed to be recent," in which it is stated that the number discharged was fifty, of which forty-five had recovered. Nothing was said of percentage in regard

to them; but the subjoined extract is taken from the context.

“It appears to be very satisfactorily proved that, of cases in which there is no eccentricity or constitutional weakness of intellect, and when the proper remedial measures are adopted in the early stages of the disorder, no less than *eighty* of every *hundred* are cured. There are but few diseases from which so large a percentage of the persons attacked are restored.”

In his report for 1845, the table of recent cases states that of fifty-seven cases discharged, thirty-six were cured; and in connection therewith, it is remarked that four others, “discharged *much improved*, were entirely well a short time after they left. These make the number of cures in recent cases *forty*.”

In a discussion of the subject of treatment, in the same report, occurs the following proposition: “When the insane are placed under proper curative treatment in the early stages of the disease, from seventy-five to ninety per cent. recover.”

The author of those reports deprecates, in regard to these extracts, no comment which he has here applied to the same assertions, or assertions equally strong, but no stronger, by any one of his colleagues. But, thirty-two years ago, Dr. Earle was somewhat younger and less experienced than he is now. His practical knowledge of the treatment of insanity, at that time, had been derived from a number of cases very considerably less than that of those who are under his care to-day. He has had time, and opportunity, and reason to modify many of his opinions; and among those modified opinions is that of the curability of insanity. Doubtless there are others of the writers here quoted, who would now seek protection, and who deserve it, under a similar plea.

The reports of Dr. William H. Rockwell, of the Vermont Insane Asylum, were models of sententious

brevity. Their author indulged sparingly in numerical statistics, but he always gave the percentages of recoveries calculated upon the number of patients discharged, and with unvarying discrimination between "old cases" and "recent cases." The percentages of the recent cases always ranked among the highest, but only in one instance did they exceed *ninety*. This was in 1839, when the percentage was ninety-one and thirty-three hundredths. In all the other years from 1838 to 1845, inclusive, they fluctuated between the two extremes, eighty-seven and fifty hundredths and eighty-nine and seventy-four hundredths.

In his report for 1849, in connection with a summary of all the patients theretofore treated at the institution, it is stated that, "of those placed at the asylum, within six months from their attack, nearly nine-tenths have recovered."

Dr. William H. Stokes, in the report for 1845, of the Mt. Hope institution, at Baltimore, Maryland, discoursed as follows:

"In our former reports for 1843 and 1844, we assumed the high ground, that not merely *nine* out of *ten* cases of insanity, of a less duration than one year, may be cured, but that *ninety-nine* in a *hundred* can be radically restored, unless there exists in the individual a strong constitutional tendency to mental disease, or unless circumstances beyond our control, and the injurious tendency of which has been fully explained, intervene to interrupt and disturb the process of cure. This position has been fully sustained, as the report will show, by the experience of the past year."

In respect to this quotation, it may be remarked that, while the proposition may be strictly true, as interpreted by an expert of long experience, yet the popular reader would be likely to remember the large proportions in its assertive clause, while forgetting, or rather not knowing, the broad scope of the contingent clause, as introduced by the word *unless*. These con-

tingencies have, since that time, practically proved their power in the very great reduction of the assumed proportions. Ninety-nine cases in a hundred, of *any* disease may be cured, unless *something* prevents.

In the report for 1841, of the Western Lunatic Asylum, at Staunton, Virginia, Dr. Francis T. Stribling, a most estimable man and an excellent superintendent, introduced a numerical table to which he appended these remarks:

“From this table it will be perceived that the whole number of recent cases during the year, in which an opportunity has been afforded to test the use of medicines, amounts only to twenty-one, of whom eleven were males, and ten females. Of these, seventeen recovered, nine males and eight females; two females are improved, one male is stationary, and one male died. From this estimate is excluded, of course, those patients who entered the institution within the last twenty days, as their stay has been of too short duration for the effects of remedies to be developed. The individual above included as having died, was only here sixteen days, and for the same reason should also be excluded, which would leave as proper subjects for this table twenty only, of whom eighty-five per cent. have recovered, a result which we confidently believe will bear honorable comparison with that in any other insane institution in existence, and one which should speak trumpet-tongued to those misguided individuals who, notwithstanding the lights which have been shed upon this important subject, within a few years past, obstinately persevere in retaining their insane friends at home, or in situations equally unfavorable, until their malady becomes confirmed and they are rendered, for life, the victims of insanity, it may be, in some one of its most aggravated and distressing forms.”

His report for 1844 contained, in tabular form, the number of recent cases admitted from July 1, 1836, to December 31, 1844, together with the results of treatment and the percentage of those results. The recoveries, as calculated upon the admissions, were equal to eighty-two, and as calculated upon the discharges, ninety-three per cent.

Of writers other than the Medical Superintendents, there is but one the opinions of whom it appears necessary here to notice.

Several years ago, Dr. Edward Jarvis wrote as follows:

“In a perfect state of things, where the best appliances which the science and skill of the age have provided for healing are brought to bear upon these lunatics in as early a stage of their malady as they are to those who are attacked with fever or dysentery, probably eighty, and possibly ninety per cent., would be restored, and only twenty, or perhaps ten per cent., would be left among the constant insane population.”

To the superficial reader, particularly if he be young and enthusiastic, this reads well, appears full of promise, and *may* be received as the assertion of a positive proposition in scientific truth. The thoughtful reader finds it too heavily laden with the conditional, the doubtful and the impossible. “Go to the foot of the rainbow”—how often it was heard, and how it excited our admiration in boyhood—“and you will find a golden cup.” “In a perfect state of things,” the writer might better have said, “there would be no insanity,” for that would have been a positive truth. The “perfect state of things” which he fancied, is unattainable, and consequently the whole substance of the proposition is little better than speculation.

It is utterly impossible, and so will it continue to be throughout all time, unless the characteristics of insanity undergo very important changes, to subject the insane to curative treatment at as early a stage of their disorder as are persons seized with fever or dysentery. In a very material proportion of the cases—more than ten, and, in my opinion, more than twenty per cent.—the approach of the malady is so slow and insidious, that the insanity is not recognized, often not suspected,

until it has passed the period in which it might have been amenable to appropriate treatment. Hence, practically, it is chronic and incurable from the beginning. To this class belong all cases of paresis—the *paralysie générale* of the French—as well as those in which natural peculiarities or eccentricities gradually increase with advancing years, until they become so exaggerated as to be generally and properly accepted as the manifestations of insanity; those in which the brain and the nervous system in general hopelessly, and somewhat suddenly, succumb to the accumulated deleterious effects of intemperance in intoxicating drinks and of other forms of dissipation; and those of “spoiled children,” who, by the results of unwise management during the periods of youth and adolescence, become some of the annoyances, *par excellence*, of the hospitals. There are other cases still, but it is unnecessary here to mention them.

The last clauses of the proposition quoted from Dr. Jarvis, those which express the deduction or the sequence of the conditional premises, are deprived of force by the assertion of a “probability” and a “possibility,” instead of a certainty. But, as has been shown, the certainty has not been, and it can not be, demonstrated. At most, then, the quotation, strictly interpreted, signifies that by the performance of an impossibility, you may arrive at a probability or a possibility.

But very much to my surprise, and, as I apprehend, to that of every person of long and large experience with the insane, Dr. Jarvis has quite recently repeated his proposition modified to a more positive form. “Under appropriate influences,” says he, “insanity is among the most curable of grave diseases. If the persons who are attacked with this disorder are as promptly cared for as others when attacked with fever,

dysentery, pneumonia, etc., eighty or ninety per cent. can be restored to health and usefulness."*

But even this is the expression of a hypothesis which requires, as is shown above, an impossibility—the placing of the patient under treatment as immediately as in the other serious diseases mentioned.

Familiarity with the writings of Dr. Jarvis, and a personal acquaintance with him of not less than thirty-five years, have led me to regard him as one of the ablest statistical philosophers of the United States. Perhaps no American has been more deeply interested in the subject of insanity than he, and few have made themselves so extensively acquainted with its literature. His practical knowledge of it is, nevertheless, but small. He has never been connected with a public hospital for the insane, except for a few years as trustee, and his experience in the treatment of the disease is limited to cases in general practice, and a comparatively very small number in a private asylum. Had his observation extended over the large numbers who have been under the care of any one of a dozen superintendents who might be named, he never, as I believe, would have written either of the foregoing extracts; for he is a conscientious searcher after truth, and no less conscientious in the expression of what he believes to be the truth.

But the essence of the proposition is not original with Dr. Jarvis. Dr. Woodward, as has already been shown, expressed and published it forty years ago. Dr. Burrows did the same more than fifty-five years ago. Upon page thirty-seven of the "Inquiry," already mentioned, he says he has "a clear conviction that it

* Fifth Annual Report of the State Board of Health, of Massachusetts, page 382.

(insanity) admits of cure in a ratio equal with almost any disorder marked by as strong indications of morbid action in the corporeal system ;” and farther on (page fifty,) reasoning from his own success, as shown by his numerical statistics, he adds, “ It is a legitimate inference that, if no other impediments than are usually opposed to the successful termination of corporeal diseases supervened, the recoveries of cases of insanity would be actually in excess ” of those of other diseases.

It is now proposed to introduce the statistics of some authorities who have not found mental disorders, when treated within a twelvemonth from the time of invasion, to yield to curative measures in so large a proportion as most of those hitherto quoted. They deal with comparatively large numbers of cases, and hence are more reliable as premises from which to deduce truthful results, than the twenty-three cases of the Hartford Retreat which, thanks to Basil Hall, made so much noise in the world ; or the thirteen cases of Dr. Galt, upon which he claimed the championship of success ; and, being based upon all the cases *admitted*, their results are more truthful, as an expression of actual curability, than the highest percentages of Drs. Woodward and Awl, which were derived from the numbers of cases *discharged*. The first, and the most valuable for our present purpose, of these statistics, are those of the Friends’ Asylum, at Frankford, Philadelphia. They are the most valuable, because of the means of their analyzation, to a certain extent, with which I have been furnished by Dr. Worthington.

The Friends’ Asylum was opened in 1817. It is a small institution, the number of its patients at any time not having been one hundred. Hence every patient comes more directly and constantly under the observa-

tion and influence of the physician-in-chief, and is more subjected to "individual treatment" than is practicable in the large hospitals. No public or corporate institution in the country approaches more nearly to the ideal "cottage" plan. It has always been well managed, and its rank as a first-class curative institution has never, to my knowledge, been questioned.

The report of that Asylum, issued this year, informs us that the whole number of cases of less than twelve months' duration, admitted since the opening of the institution, was one thousand and sixty-one. Of these *cases*, six hundred and ninety-seven, or sixty-five and sixty-nine hundredths per cent., recovered. This proportion is already small compared with some which have been noticed. But let us examine a little farther. Of these one thousand and sixty-one *cases*, one hundred and eighty-seven were of *readmissions*. Hence the number of *persons* was eight hundred and seventy-four. Eighty-seven (87) of these *persons* recovered two hundred and seventy-four *times*, or one hundred and eighty-seven times more than the number (eighty-seven) of *persons*. These were duplicate or multiply recoveries. Subtracting them (one hundred and eighty-seven) from the total (six hundred and ninety-seven) recoveries, the remainder is five hundred and ten recoveries, and these are the recoveries of *persons*. Consequently, of eight hundred and seventy-four *persons*, five hundred and ten recovered. This is equivalent to a percentage of fifty-eight and thirty-five hundredths. This process makes a material alteration in the aspect of things, if the proposition be to ascertain the proportion of recoveries of insane *persons*. Only fifty-eight (without the fraction) of each hundred recovered. And these were not all *permanent* recoveries. Of the five hundred and ten *persons* who recovered at least once each, eighty-

seven were admitted on subsequent attacks. Therefore, at most, only (five hundred and ten less eighty-seven) four hundred and twenty-three *persons* were *permanently cured*. This is but forty-eight and thirty-nine hundredths per cent. of the whole (eight hundred and seventy-four,) or *less than forty-nine in each hundred*. It is very far from certain, it is not even probable, that so many were permanently cured. Who knows how many of them suffered from subsequent invasions of the disorder, slighter, perhaps, than the first, and for this reason—or perhaps quite as severe as the first, and for some other reason, for such reasons are many—detained and treated at home? Who can tell the number that, having a recurrence of the malady, were taken to some other institution? Such changes are not infrequent, and in this instance would be particularly likely to occur, from the fact that, in the course of the period during which these persons were admitted, several other excellent institutions were established within the territory from which the Friends' Asylum, in its earlier years, received its patients.

At some of the institutions, a number not inconsiderable of the admissions of recent cases are not cases of insanity, properly so-called, but of delirium tremens. My impression is, that but few, if any, of these have been treated at the Friends' Asylum. But if any there have been, the number of them should be rejected, and the recoveries would thus be proportionately reduced.

Any person who is interested in the subject will not neglect carefully to study the foregoing analysis. Considering all the circumstances, there is no collection of *cases* in America which more fairly represent the actual curability of mental disorders, when subjected to treatment within the year, than those of the Frankford Asylum. Yet, as they stand in mass, they offer neither

ninety, nor eighty, nor seventy-five, nor seventy per cent. of recoveries; and the moment their columns are broken and they are subjected to such analysis as will detect the number of *persons* recovered, the proportion rapidly falls to a point below fifty per cent., still leaving unexamined influences which would probably carry it materially lower.

The report for 1869 of the Asylum at Dayton, Ohio, which was at that time under the superintendence of Dr. Richard Gundry, contains the results of treatment, in respect to restoration, of all the patients admitted in the course of the fourteen years during which that institution had been in operation. Of the one thousand four hundred and twenty-seven cases the duration of which did not exceed one year, eight hundred and thirty-one, or fifty-eight and twenty-three hundredths per cent. recovered. But these were *cases*, not *persons*. Were the proper deductions made, as in the cases at Frankford, for readmissions, it would be found that the recoveries of *persons* was little, if any, in excess of fifty in the hundred. Other proper deductions would doubtless reduce them below fifty per cent.

Of the one thousand four hundred and twenty-seven *cases*, five hundred and thirty came under treatment within one month subsequent to the attack. Of these, three hundred and sixty-three, or sixty-eight and forty-nine hundredths per cent., recovered. The recoveries of *persons* probably but slightly exceeded sixty per cent. The very large proportion taken thus early to the hospital justifies the suspicion of many cases of delirium tremens, and many readmissions.

Dr. Godding, in the last published report of the State Hospital at Taunton, informs us that "out of three thousand one hundred and thirty-one patients admitted to the hospital, where the disease was of less

than six months' duration at the time of admission, one thousand three hundred and fifty-one recovered." This is forty-three and fourteen hundredths per cent. These were *cases*, and *not persons*; and they do not include the cases of from six to twelve months' duration,—the most incurable of the cases which have existed less than a year. In justice, however, to Dr. Godding, no less than to truth, both scientific and general, it should be mentioned that the pressure of patients upon the Taunton Hospital has been so great, for several years, that many have been hurried away from it without sufficient trial of curative treatment; and that doubtless there was a no inconsiderable number of those who would otherwise have recovered.

It may here be mentioned, as bearing upon the subject under discussion, that at the Worcester Hospital, under Dr. Woodward, during the second period of five years of its operations, the per cent. of recoveries of recent cases was ninety and one-tenth, yet, twenty-four years later, under Dr. Bemis, during the period of five years, from 1864 to 1868, inclusive, it was but sixty-eight and eight-tenths. In both instances these were *cases*, and *not persons*; and the percentage was upon patients *discharged*, and not upon patients admitted.

Dr. Stearns, in the report of the Hartford Retreat for the official year ending with the close of March, 1876, asserts that during the first nine years of the operations of that institution, which was then in charge of Dr. Todd, ninety and one-tenth per cent. of recent cases recovered. Forty years afterwards, during the six years from 1869 to 1874, inclusive, under Doctors Butler, Denny and Stearns, in succession, only sixty-two and three-tenths per cent. recovered. The proportion of recoveries during the first period was forty-four and sixty-two hundredths per cent. greater than it was

during the last period. If the proportion during the second period be represented by one hundred, that of the first period is represented by one hundred and forty-four and sixty-two hundredths.

The first European authority (Dr. Burrows) quoted in the discussion of this subject, is that of an eminent psychologist of London, fifty years ago. We have now arrived at a point where the recent language of another eminent psychologist, of the same city, may very appropriately be introduced. He speaks not alone from his own observation, which has probably been as extensive as that of Dr. Burrows, but out of the accumulated knowledge of the vastly enlarged experience of the last half-century in England. Dr. G. Fielding Blandford, lecturer on Psychological Medicine at the School of St. George's Hospital, London, uses the following language in his treatise upon mental disorders lately published:—

“If we could carefully watch every case of insanity from its commencement, I fear we should see that a less number than fifty-three per cent. recover from the first attack, so great is the proportion of those who are incurable from the first, or who, from the prejudices of friends, are not subjected to treatment till the chance of cure is gone; and if, by dint of proper treatment, the above percentage recover, they only recover, again to become insane in a large proportion.”

Such was the testimony in the British capital, in 1870, precisely fifty years after the publication of the “Inquiry” by Dr. Burrows.

Having given a historical sketch of the means by which an impression of the eminent curability of insanity, in its recent stages, has been widely impressed upon the minds of persons more or less interested in the subject, and shown that the opinions of the writers

who were chiefly instrumental in the production of that impression have not been sustained by subsequent and more enlarged experience, I now propose to give a cursory glance at the question of curability, in that broader signification which embraces all classes of cases, both recent and chronic, as they are received at the curative institutions.

Every person who has made himself conversant with the operations of the hospitals during the last thirty years, can not fail to have observed the constantly diminishing number of reported recoveries, relatively to the number of patients admitted.

At the State Hospital in Maine, in the five years from 1846 to 1850, inclusive, five hundred and eighty-seven patients were admitted, and two hundred and eighty-five, or a proportion of forty-eight and fifty-five hundredths per cent., recovered. At the same institution, in the five years from 1871 to 1875, inclusive, nine hundred and fifty-three were admitted, and three hundred and forty-nine, or a proportion of only thirty-six and sixty-two hundredths per cent., recovered. The difference in the per cent. of recoveries is eleven and ninety-three hundredths.

At the McLean Asylum, in the five years from 1823 to 1827, inclusive, (fifty years ago,) the admissions were two hundred and ninety, and the recoveries one hundred and eighteen, or forty and sixty-nine hundredths per cent.; while in the five years from 1871 to 1875, the admissions were four hundred and twenty, and the recoveries ninety-one, which is only twenty-one and sixty-six hundredths per cent. The difference is nineteen and three hundredths per cent. The proportion of recoveries is but little more than one-half as great as it was half a century ago.

At the Worcester Hospital, during the five years from 1839 to 1843, inclusive, nine hundred and twenty-two cases were admitted, and four hundred and forty-eight, or forty-eight and fifty-nine hundredths per cent., recovered. During the five years from 1871 to 1875, inclusive, two thousand and sixty were admitted, and six hundred and thirteen, or only twenty-nine and seventy-five hundredths per cent., recovered. The ratio of recoveries is but about three-fifths as great as it was thirty-five years ago.

At the Utica asylum, from 1848 to 1852, inclusive, eighteen hundred and ninety cases were admitted, and eight hundred and sixteen recovered, which is forty-three and seventeen hundredths per cent.; whereas, from 1871 to 1875, inclusive, twenty-one hundred and twenty-five were admitted, and six hundred and eighty-seven, or only thirty-two and thirty-three hundredths per cent., recovered. The proportion of recoveries is about three-fourths as large as it was twenty-five years ago.

In each of these illustrative instances, the beginning of the first of the two periods of five years between which a comparison is instituted, was five years after the institution went into operation. For example, the Maine State Asylum was opened in 1840, and the first period used in the comparison is from 1845 to 1850. This was done for the purpose of avoiding the unnatural or abnormal influence, whether favorable or unfavorable,—as a general rule the latter,—of the cases which are taken to any new institution within the first year or more after its opening. After the lapse of five years, the current of admissions, it is assumed, has attained its normal character in respect to the curability of the patients.

In the last report of the Hartford Retreat, Dr. Stearns informs us that, at that institution, the percentage of recoveries "on all admissions" from 1824 to 1833, inclusive, was fifty-five and five tenths. During the next six years, from 1834 to 1839, inclusive, it was fifty-six and ninety hundredths; during the five years from 1847 to 1851, it was forty-eight and ten hundredths; during the thirteen years from 1855 to 1867, inclusive, forty-five and seven tenths; and during the six years ending with 1874, it was thirty-seven and eight tenths. The difference of the extremes is nineteen and one-tenth. Hence, in about forty years, the proportion of recoveries upon admissions diminished (from fifty-six and nine-tenths to thirty-seven and eight-tenths per cent.) a little more than one-third.

It is unnecessary to pursue this detailed illustration any farther. The cumulation of evidence may be presented in a manner more condensed. The table here subjoined contains the principal facts of evidence, as furnished by the reports of twenty institutions.

INSTITUTION.	Sec'nd five yrs from opening.	Last five years.	Total admitted.	Total recovered.	Per cent. of second five years.	Per cent. of last five years.	Decrease of per cent.
Augusta, Maine,...	1846-50	.....	587	285	48.55	.....	.....
" " ...	.....	1871-75	953	349	....	36.62	11.93
Concord, N. H.,...	1848-52	.....	471	221	46.92	.....	.....
" " ...	.....	1872-76	746	246	....	32.97	13.95
Brattleboro, Vt.,...	*1841-46	.....	793	345	43.50	.....	.....
" " ...	.....	*1871-76	667	203	....	30.43	13.07
Mc Lean, Mass., ...	1823-27	.....	290	118	40.69	.....	.....
" " ...	.....	1871-75	420	91	....	21.66	19.03
Worcester, Mass.,...	1839-43	.....	922	448	48.59	.....	.....
" " ...	.....	1871-75	2,060	613	...	29.75	18.84
Taunton, Mass.,...	1859-63	.....	1,132	492	43.46	.....	.....
" " ...	.....	1871-75	2,189	506	....	23.11	20.35
Butler Hospital,...	1854-58	.....	279	111	39.78	.....	.....
" " ...	.....	1872-76	520	185	....	35.57	4.21
Hartford Retreat, ..	1829-33	.....	324	186	57.40	.....	.....
" " ...	.....	1870-74	533	209	....	39.21	18.19
Bloomington, N. Y.	1826-30	.....	635	302	47.55	.....	.....
" " ...	.....	1871-75	602	196	....	32.55	15.00
Utica, N. Y.,.....	1848-52	.....	1,890	816	43.17	.....	.....
" " ...	.....	1871-75	2,125	687	....	32.33	10.84
Flatbush, N. Y.,...	1861-65	.....	1,072	449	41.88	.....	.....
" " ...	.....	1871-75	1,700	563	....	33.11	8.77
Trenton, N. J.,.....	1853-57	.....	715	306	42.79	.....	.....
" " ...	.....	1872-76	996	312	....	31.32	11.47
Pennsylvania Hosp.,	1846-50	.....	1,037	530	51.10	.....	.....
" " ...	.....	1871-75	1,371	570	....	42.30	8.80
Dixmont, Pa.,.....	1861-65	.....	479	181	37.78	.....	.....
" " ...	.....	1871-75	1,156	347	....	30.01	7.77
Catonsville, Md.,...	1839-43	.....	376	194	51.59	.....	.....
" " ...	.....	1871-75	671	274	....	40.83	10.76
Newburgh, Ohio,...	1860-64	.....	579	270	46.63	.....	.....
" " ...	.....	1871-75	1,352	406	....	30.03	16.60
Dayton, Ohio,.....	1860-64	.....	492	296	60.16	.....	.....
" " ...	.....	1870-74	1,737	786	....	45.25	14.91
Indianapolis, Ind.,...	1853-57	.....	826	473	57.26	.....	.....
" " ...	.....	1871-76	1,932	1014	....	52.48	4.78
Jackson, Ill.,.....	*1855-60	.....	937	436	46.53	.....	.....
" " ...	.....	*1869-74	1,818	581	....	31.96	14.57
Mendota, Wis.,...	1865-69	.....	680	230	33.82	.....	.....
" " ...	.....	1871-75	835	216	....	25.86	7.96

* These are periods of *six* years each, rendered necessary by the fact that the hospitals issued reports biennially.

The total of admissions at the twenty institutions, in the course of the first period (second five years of operation,) is fourteen thousand five hundred and sixteen; the number of recoveries, six thousand six hundred and eighty-nine; and the proportion of recoveries on admissions, forty-six and eight hundredths per cent.

The admissions during the second period (last five years,) were twenty-four thousand three hundred and eighty-three; the recoveries, eight thousand three hundred and fifty-four; and the per cent. of recoveries, thirty-four and twenty-six hundredths.

The recoveries diminished from forty-six and eight hundredths, to thirty-four and twenty-six hundredths, which is eleven and eighty-two hundredths. The diminution of recoveries is equal to nearly twenty-six (25.66) per cent. of the recoveries of the first period. For every hundred that recovered on an average of twenty-five years ago, only a fraction over seventy-four (74.34) now recover.

The reader will observe that in all of the contents of this table, the figures relate to *cases*, and not to *persons*. The depreciation of percentage in such statistics, if the object be to ascertain the proportionate recoveries of insane *persons*, has been clearly illustrated. If only thirty four (34.26) in each hundred of the *cases* now received into the hospitals are discharged recovered, the recoveries of *persons* cannot be more than about thirty in the hundred.

It has now been shown that,—

1. The reported recoveries from insanity are increased to an important extent by repeated recoveries from the periodical or recurrent form of the disease in the same person; and consequently,—

2. The recoveries of *persons* are much less numerous than the recoveries of *patients*, or *cases*; and, consequently,—

3. From the number of reported recoveries of *cases*, or *patients*, it is generally impossible to ascertain the number of *persons* who recovered.

4. The number of reported recoveries is influenced, sometimes largely, by the temperament of the reporter; each man having his own standard, or criterion, of insanity.

5. The large proportion of recoveries formerly reported, were *often* based upon the number of patients *discharged*, instead of the number *admitted*, and, *generally*, upon the results in a number of cases too small to entitle the deduction therefrom of a general formula of scientific truth; and those proportions were evidently increased by that zeal and (for want of a better word) rivalry which frequently characterize the earlier periods of a great philanthropic enterprise.

6. The assumed curability of insanity, as represented by those proportions, has not only not been sustained, but has been practically disproved by subsequent and more extensive experience.

7. The reported proportion of recoveries of all cases received at the institutions for the insane, has been constantly diminishing during a period of from twenty to fifty years.

The last clause under the fifth of these heads suggests the remark that, at a later period in the life of Dr. Luther V. Bell than that in which he wrote what is quoted in this article, his opinions in regard to the general curability of mental disorders underwent an important modification. He then regarded them as far less susceptible of cure than he had believed them to be in his earlier years; and the language which he used

upon the subject contrasted so strongly with some of that which is herein quoted from his writings, that it might be alleged as indubitable proof that "a wise man sometimes changes his opinions."

If the causes of the general reduction of the proportion of recoveries, as stated under the seventh head, be sought, some of them will be found in, or inferred from, preceding portions of this discussion.

Among others are, first, the probable fact that, as institutions have multiplied, the proportion of chronic and incurable cases taken to them has increased; and, secondly, the not improbable fact that insanity, as a whole, is really becoming more and more an incurable disease. If it be true, as asserted by that accomplished scholar and profound thinker, Baron Van Feuchtersleben,—and doubtless no one will deny its truth,—that in the progress of the last few centuries, as civilization has advanced and the habits of the race have been consequently modified, disease has left its stronghold in the blood and the muscular tissues, and at length seated itself in the nervous system; it follows, perhaps, as a necessary consequence, that by a continuation of the cause of this change, the diseases of the brain and nerves *must* become more and more permanent.

Hence it has happened that the proportion of recoveries from insanity has not kept pace with the improvement of hospitals and of the management of the insane.

Dr. Isaac Ray, in his report of the State Hospital, in Maine, for the year 1844, asserted that "he would be a bold man who should venture to say that Pinel and Esquirol, whose medical treatment was confined chiefly to baths and simple bitter drinks, were less successful in their cure of mental diseases than those numerous practitioners who have exhausted upon them all the resources of the healing art."

If the assertion was true thirty-two years ago, it is believed that the contents of this exposition sufficiently prove that it is, to say the least, none the less true at the present day. The years of a generation have passed since that time, and, in the course of their progress, remedy after remedy before untried has come up, big with the word of promise to the hope, but essentially breaking it to experience. Haschisch was experimentally tried, proved a failure, and is now nearly forgotten. Chloroform and ether have become convenient and useful to a certain extent, but they have no curative power previously unknown in other remedies. The same may be said of chloral and the bromides. Electro-magnetism, upon which great hopes were placed, is very beneficial in a few cases of abnormal nervous action, but hitherto has proved itself powerless to correct those cerebral functions the abnormal operations of which constitute insanity.

It would appear, indeed, that the truth of Dr. Ray's proposition would have been little if any affected, if he had gone back to a period a full century anterior to the time of Pinel. Dr. Burrows informs us, on the authority of Dr. Tyson, physician at Bethlehem at the time, that from 1684 to 1703, twelve hundred and nine-four, (1,294) patients were admitted to that hospital, and eight hundred and ninety (890) recovered. This proportion of recoveries is almost sixty-nine (68.77) in the hundred. But epileptics, paralytics, and perhaps some other incurables, were not admitted at Bethlehem at that time.

The reported recoveries at the same hospital, one hundred years later, in the decade from 1784 to 1794, were thirty-four in a hundred. By a remarkable coincidence, this proportion is almost identical with that (thirty-four and one hundredths) of the recoveries in

all the institutions for the insane in England and Wales during the sixteen years from 1859 to 1874, both inclusive.

In approaching a conclusion, I quote from Dr. Thurnam his estimate of the curability of the insane, derived from a more thorough investigation of the subject, as presented in the patients treated at the Retreat in York, England, during a period of forty-four years, than has ever been attempted by any other writer. I have long regarded this estimate as the most nearly accurate, and hence the most reliable, of any that has been published; and it is believed that the attentive reader of what has here been written will have arrived at a similar conclusion.

“In round numbers, then, of ten persons attacked by insanity, five recover, and five die, sooner or later, during the attack. Of the five who recover, not more than two remain well during the rest of their lives; the other three sustain subsequent attacks, during which at least two of them die. But, although the picture is thus an unfavorable one, it is very far from justifying the popular prejudice that insanity is virtually an incurable disease; and the view which it presents is much modified by the long intervals which often occur between the attacks; during which intervals of mental health (in many cases of from ten to twenty years' duration,) the individual has lived in all the enjoyments of social life.”

Drs. Bucknill and Tuke, in their “*Psychological Medicine*,” by far the best general treatise upon insanity in the English language—and there is reason to believe that it has no superior in any other language—so far endorse the results obtained by Dr. Thurnam, as to quote, not alone this extract, in which they are embodied, but the statistical table from which they are derived.

Our attention may be now redirected to the propositions at the beginning of this discussion, with a view to ascertain the effect of the facts and opinions

herein adduced. In brief, then, it appears that it may fairly be asserted, first, that all estimates based upon the assumption that either seventy-five, or seventy, or sixty, or even fifty per cent. of the *persons* attacked with insanity can be cured and returned to the class of permanent producers in the sphere of human labor, are necessarily false, and consequently are both "a delusion and a snare;" and, secondly, that if the Vermont Asylum for the Insane can be justly censured or condemned because of the diminution in the proportionate number of its reported recoveries, its sister institutions, throughout the land, are generally in the same category of censurable organizations, and are open to a like condemnation.

Although it has here been shown, beyond cavil or question, that, as a whole, the *cases* of insanity are less curable than has, by many, heretofore been believed, and that the same is far more emphatically true of insane *persons*; yet, by so doing, no argument has been developed against the utility of hospitals, nor has the practical value of those establishments been in the least diminished. False impressions of their value may have been corrected; and, to that extent, not alone has the cause of truth, which is better than error, been promoted, but a measure of protection has been furnished to the medical officers of the hospitals. The declarations of the earlier superintendents are returning, like boomerangs, to spend their ultimate force upon their promulgators, or, as in the instance of the Vermont Asylum, herein mentioned, upon the persons now standing in the places of their promulgators. It is here demonstrated that there is a proper shield against their offensive assaults.

Meanwhile the institutions for the custody and cure of the insane have become a public necessity, and have

proved themselves a greatly beneficent blessing to the people. Through their ministrations *very many* persons of disordered or perverted intellect have been restored to their homes, their friends, and their spheres of usefulness in society, *permanently* "clothed and in their right mind." Even to the political economist, or the sheerest utilitarian, this is a fact of significant importance; and, by the philosopher, the philanthropist, or the christian, it must be regarded as a blessing above and beyond all estimate in standards of pecuniary value. Nor are the duplicate or the multiply recoveries of the persons subject to mental disorders of the recurrent type, to be too lightly estimated. A recovery is none the less desirable, and none the less valuable to the person, or to society, *so long as the person remains well*, because it is of limited duration.

While, then, the hospitals continue their progress in the fulfillment of their beneficent mission, it would appear that the better course for the superintendents is to discard, universally, as they already have discarded, to a great extent, the classification of their cases according to duration; but constantly to keep before the people the great truth that, as a rule having comparatively few exceptions, the sooner the person attacked with insanity is placed under curative treatment, the greater is the prospect of recovery.

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MAINE. *Report of the Maine Insane Hospital*: 1876. Dr. H. M. HARLOW.

There were in the Hospital, at date of last report, 403 patients. Admitted since, 183. Total, 589. Discharged recovered, 68. Improved, 33. Unimproved, 31. Died, 52. Total, 184. Remaining under treatment 405.

The "additions, renewals and improvements" reported during the year have exceeded those of any previous year. These include a new water supply, a new kitchen, remodeling and renovating rooms, painting and keeping the buildings in repair, improvements upon the farm, &c., &c. The subject of ventilation of the Hospital is forcing itself upon the attention of the Trustees. This will be a work of great magnitude, but its importance should put it beyond the danger of any miscarriage or delay.

The recommendation is made to enlarge the Institution by erecting an addition to the women's side to accommodate about forty patients, and also a building for about thirty patients of the criminal class. This will accomplish their separation from the other patients, and will insure their proper care under observation of those best able to form an intelligent opinion of their mental state.

The dependence of insanity upon the use of alcohol has occupied the Doctor's attention, and he has presented his ideas in this report. He sets down one case in every four or five as due to intemperance, and

considers it both a predisposing and an exciting cause. This large percentage is far beyond our experience. The mode of action he maintains, is upon the minute structure of the brain, by modifying or destroying the nutrition of the organ.

VERMONT. *Biennial Report of the Vermont Asylum for the Insane*: 1876. DR. JOHN DRAPER.

There were in the Asylum, at date of last report, 471 patients. Admitted since, 222. Total, 693. Discharged recovered, 56. Improved, 69. Unimproved, 25. Died, 54. Total, 204. Remaining under treatment, 489.

The changes and improvements in the buildings, the introduction of gas and steam heating apparatus, the additions to the furnishing of the Asylum, all indicate the progress that is being made toward modernizing this, one of the older institutions in the country, and adapting it to the present demands of medical science and public opinion.

The subjects of occupation, diversion, correspondence, religious privileges, are briefly treated of. The necessity of an increase in the weekly stipend from the State, for the care of public patients, is apparently fully sustained by showing the present cost and probable future increase in the expenditures. The sum now paid is only three dollars, which is one dollar per week less than the average in the New England States. The number of patients dependent upon State aid is larger than ever before, numbering two hundred and seventy-seven. To continue their care at this rate will only result disastrously, by adding to the debt of the institution. "The prime question is not, now, how cheaply the insane may be supported, but, rather, how much may be done for them, with benefit, and ought in justice to be so expended."

Joint Report of the Committee of the General Assembly on the Insane Asylum, at the Biennial Session: 1876.

The report of the committee gives a short and condensed history of the Institution, and of its connection with the State. After thorough investigation the committee reported favorably upon the condition and character of the buildings, of their furnishing, of the food and treatment of patients, and of the success of its management. They were unwilling to assume the responsibility of recommending an appropriation for the erection of another asylum, and closed with the expression of the opinion that the State should pay the actual expense of supporting public patients, viz, three dollars and thirty-three cents per week.

Biennial Report of H. H. ATWATER, M. D., Commissioner of the Insane of the State of Vermont.

Review of the Report of the Commissioner of the Insane, by the Officers of the Vermont State Asylum.

The history of the Asylum, in its financial relation to the State, shows that in addition to the original gift of \$10,000 from private munificence, it has received from the State, in various appropriations, the sum of \$23,000, making a total of \$33,000. That there has been expended in permanent improvements \$308,397.72, which subtracting the \$33,000, and a present debt of \$45,000, leaves the sum of \$230,397.72 as the actual profits of the management of the Asylum for forty years. The appropriations made by the State contained two provisos, one of which was, that in admissions, preference should always be given to residents of Vermont, and that in case the Institution ceased to exist as an asylum, the real estate should be held by the State, as security for the sums appropriated. The beneficiaries of the

State have all been received in the Asylum at prices ranging from \$1.50, to \$3.00 per week, the price now charged. The title to the property is vested in a Board of Trustees.

Dr. Atwater, however, in his report to the Legislature, characterizes this connection of the Asylum with the State as "a unique and one sided partnership, such as I think, has no parallel." If we mistake not, the relation between the Retreat, at Hartford, and the State of Connecticut, was an analogous one, with the exception that there was no proviso made in favor of the State, in the way of a lien upon the property. It is, however, claimed that the Institution has been built up at the expense of the State of Vermont, from the excess of charges over expenditures in the care of State patients, and that at least two-thirds of the value of the property, in equity, belongs to the State. This argument would seem to be fully met by the report of the Legislative committee, in which the recommendation is made that the State pay \$3.33, which is computed by them to be the actual cost of care and treatment per week, instead of \$3.00, the highest sum ever paid. This action does not convey the impression that the Institution is making money in its care of State patients. The review of the report by the officers shows that the State has thus been benefited to the amount of \$133,049.71 in current disbursements, over and above what has been covered by the State rate. To an unprejudiced observer the whole matter, briefly stated, would seem to be that for \$23,000, appropriated in small sums from \$2,000 to \$5,000, the State of Vermont has enjoyed the advantage of an asylum for the insane for a period of forty years, and that she has paid a price less than she would have been obliged to pay for a like service in an institution of her own erection and conduct. Another

fact would seem to be plainly established that this benefit had been attained, by the presence in the Asylum of so large a percentage of patients of the private class from other States. By this means it would appear that the Institution has been built up and supported, and that the State of Vermont has derived large pecuniary benefit from the partnership. The Legislative committee evidently appreciated the fact when they reported unfavorably upon the proposition to erect a State institution, which, at the lowest estimate, would cost \$300,000.

Under the heading of the vital relation to the State, the commissioner has arraigned the medical management of the Asylum, by claiming that the percentage of recoveries has fallen off from thirty-two per cent. during the first two years, to eight per cent. during the last two. The fallacy of the statement is at once exposed, when we note that the statistics are based, not upon the admissions, but upon the total population. It is said "figures do not lie," but if manipulated they certainly can be made to misrepresent the truth. In the case before us, when the comparison is properly made the per cent. is twenty-five, instead of eight.

Another table of the Commissioner's report is made by comparing the first seven years of the Asylum with the single year of 1854. Statistics drawn from such comparisons are worthless, and what is especially unfortunate, as the periods have no relation to each other, the comparison seems like a perversion, simply to sustain a position assumed. Another assertion, if it proves anything, proves too much, that in his opinion "the Asylum does not apply the well established truths and principles in the care and treatment of the patients, nor does it meet the requirements of a well regulated institution for the care of the insane, and has not done

so since the first ten years, and since the number of its patients has exceeded three hundred." In this statement the number under treatment must be the cause of the want of success, as we have no proof that any other conditions were in the least changed. Therefore, we must look for some potent influence for evil the moment the magical number of three hundred is exceeded. If this is true of the Vermont State Asylum, it should also hold in all other institutions which have increased their number beyond this arbitrary limit. Such an absolute assertion has no weight when placed in comparison with a general experience of many years, which has led those possessing the most practical knowledge upon the subject, to double the number, and claim greater advantages and benefit to the patients from treating six hundred, in the same institution, rather than three hundred.

The whole attack upon the Asylum exhibits the animus of prejudice, and does no credit to an authority charged with the supervision of a great and beneficent charity. The report is in bad temper, and reminds us, in many respects, of the writings of a class of inexperienced, would-be alienists, and of uncured patients discharged from asylums. The State of Vermont has wisely dispensed with the services of Dr. Atwater.

MASSACHUSETTS. *Twenty-first Annual Report of the State Lunatic Hospital, at Northampton*: 1876. Dr. PLINY EARLE.

There were in the Hospital, at date of last report, 476 patients. Admitted since, 153. Total, 629. Discharged recovered, 32. Improved, 49. Unimproved, 47. Died, 37. Total, 165. Remaining under treatment, 464.

We present Dr. Earle's remarks upon the "Curability of Insanity," enlarged to the form of an article, in the present number of the JOURNAL.

The comments upon the State Hospital at Danvers, seem to have been made to enable the Doctor to withdraw as gracefully as possible, from his former position in commending the plan and urging the completion of the Institution as soon as was properly practicable. He stands in the light of a critic and may we not say, of an opponent to the new institution. The following prediction is only calculated to destroy the confidence of the public and to discourage and embarrass the man who may be chosen to the management of the Hospital. It does not breathe the spirit of generous aid and fraternal sympathy which one may rightly expect, till forfeited, from his associates—"It would probably be prudent for him who shall suffer the misfortune to be elected to the superintendence of that hospital, to request in the beginning the prayers of all the churches in the commonwealth." This looks like a declaration of war from one who in advance felt sure of the victory. We can but hope that Dr. Earle will be disappointed in his prediction. Whatever errors or extravagancies may have occurred in construction, they should not be laid as a bar beforehand to the successful administration of the Institution.

MASSACHUSETTS. *Forty-fourth Annual Report of the State Lunatic Hospital at Worcester:* 1876. DR. B. D. EASTMAN.

There were in the Hospital, at date of last report, 478 patients. Admitted since, 351. Whole number under treatment, 829. Discharged Recovered, 72. Improved, 97. Unimproved, 96. Died, 77. Total, 342. Remaining under treatment, 487.

In the twelfth annual report of the Board of State Charities, under the topic of "Prevention of Insanity," it was stated that in all the reports of the various Asylums of the State, this subject had received little atten-

tion and that the only distinct notice of it was contained in the tenth annual report of the Taunton Hospital. This was taken by Dr. Eastman as the text of his report. He shows how fallacious the statement is by making extracts from sixteen of the reports of the three State Hospitals. These are of varying lengths and importance, but taken together, include all the essential facts that experience and the study of the causation of insanity have contributed to science. It is justly remarked that every table of causation contains the desired knowledge, properly tabulated and classified, and that from these tables the principles and facts of interest to the public and the individual have often been elucidated and presented for consideration and for the government of life. That the application has not been made, and the legitimate benefit to society attained, is not the fault of the superintendents of the institutions, but it is apprehended that this "seed has not fallen into good ground, at least the fruits thereof are not apparent. The conclusion is well nigh established, that it is useless to write what no one of those who really need it most will ever read, and what will not be heeded by those who do read it and who need it least."

MASSACHUSETTS. *Twenty-third Annual Report of the State Lunatic Hospital, at Taunton: 1876.* Dr. W. W. GODDING.

There were in the Hospital, at date of last report, 602 patients. Admitted since, 583. Total, 1,185. Discharged recovered, 123. Improved, 195. Unimproved, 77. Died, 98. Total, 493. Remaining under treatment, 692.

Attention is directed to the great number of admissions for the year, the largest since the opening of the Hospital. An analysis of admissions, in comparison with previous years, shows that there has been a gradual

decrease in the number of acute cases of less than six months' duration. Thus, for the five years ending in 1860, the number of such cases was sixty-seven per cent. of the admissions, while for the corresponding period ending in 1875, the percentage was but forty-nine, and during the last year but forty-five. We have, in this fact alone, a potent cause of the reduction of recoveries on discharges from forty per cent. in 1860 to less than twenty-five in 1876. Some cause has evidently been operative in keeping friends from bringing the insane under treatment until the time when the best results might be expected, has passed by. In commenting upon this state of affairs, Dr. Goddidge remarks :

“ In crediting this, in a measure, at least, to the persistence and pernicious agitation of the question of the care of the insane, and strictures on the treatment in hospitals, by those who know the least about them, I may have been mistaken ; but if these infesters of reform have not done this, I hardly know what else they have accomplished.”

We quote from the report the Doctor's comments regarding “ the type of insanity ” existing in New England. We do this the more willingly as the description is so accurately drawn of a large number of acute cases admitted to the Asylum at Utica :

And here, in passing, I wish to put myself on record as believing in a New England type of insanity, certainly more positive, clearer cut, and less easily managed, than the majority of cases elsewhere. With experience in two New England hospitals, as well as the observation of a large number of the insane from different sections in another latitude, I should still hesitate to put forward this opinion, had I not found it to be confirmed by others who have had equal or greater opportunities than my own for testing its truth or falsity. It may be a trace of the old Puritan blood, but I think, rather, that it is due to the character of our climate, as it soon appears in our foreign population. It is characterized by intensity—used often to culminate in Bell's disease, which I have not seen of

late; it delights in noise—the crash of glass is music in its ears; it rends its garments, refuses food so as often to require the stomach-tube, settles into despair so deep that it would seem dementia were it not so actively suicidal, and, in acute cases, dies of maniacal exhaustion out of all proportion to that recorded elsewhere. Of course, there is no one at all conversant with insanity in any region but sees just such cases as I have outlined; but in New England this seems to be the prevailing type in acute cases, certainly enough so to characterize the section.

In view of the demands of the insane, it is recommended to “elevate Tewksbury out of a mere receptacle into the position of a State hospital; make it, as now, exclusively for the insane who, having no settlement, are pre-eminently the wards of the State.” * * * “Thus far, as a receptacle appended to an almshouse, removing hope by characterizing its inmates as incurables, it has been a very doubtful success; as a working hospital for all the insane who are State charges, it might, in the right hands, be made a model curative institution.” We gladly give space to such recommendations as look to the elevation of the character of institutions for the care of the insane, and tend to correct any retrograde movements. The remarks upon the duties of attendants and occupation of patients, are interesting and suggestive of a thorough appreciation of the subjects.

RHODE ISLAND. *Report of the Butler Hospital for the Insane:*
1876. DR. JOHN W. SAWYER.

There were in the Hospital, at date of last report, 143 patients. Admitted since, 96. Total, 239. Discharged recovered, 36. Improved, 26. Unimproved 20. Died, 12. Total, 94. Remaining under treatment, 145.

The statistics present an unusually favorable record, the percentage of recoveries upon all admissions being

thirty-seven and five tenths, which is more than that of the ten past years, and than the average of the twenty-nine years of the existence of the Hospital.

One of the wards on the women's side of the house, was much improved and beautified by the addition of a bay window and by re-furnishing. This was the gift of a lady friend of the Hospital. Other wards were repaired, and put in order at the expense of the Institution. The treatment of insanity is upon the theory of its being a physical disease amenable to medical care. Amusements and occupation have been found in riding, entertainments, reading, music and pictures. The financial record is without change.

CONNECTICUT. *Eleventh Report of the Connecticut Hospital for Insane*: 1876. Dr. A. M. SHEW.

There were in the Hospital, at date of last report, 460 patients. Admitted since, 88. Total, 548. Discharged recovered, 18. Improved, 32. Unimproved, 17. Died, 15. Total, 82. Remaining under treatment, 466.

The report of the Trustees represent the Hospital as being conducted with satisfactory economy and success, and in a manner reflecting great credit upon the officers concerned in its management. The superintendent gives most of the space of the report to a narration, in considerable detail, of efforts to employ and occupy the patients. A new method of occupation and discipline has been made trial of. Military evolutions have been successfully introduced, and found valuable in interesting a large class of patients who were not fitted for active employment. Marked results in improving the discipline of the house, in producing quiet, reducing the amount of physical restraint, and in procuring sleep, have been noted.

NEW YORK. *Seventeenth Annual Report of the State Asylum for Insane Criminals*: 1876. Dr. CARLOS F. MACDONALD.

There were in the Asylum, at date of last report, 86 patients. Admitted since, 30. Total, 116. Discharged recovered, 8. Improved, 3. Unimproved, 2. Condition not recorded, 4. Died, 4. Total, 21. Remaining under treatment, 95.

Considerable difficulty is experienced in gaining a history of the convict cases received into the Institution, while, on the other hand, complete accounts can be obtained of the unconvicted or criminal class. The medico-legal interest surrounding these cases is sufficient to bring out all the facts. The same holds true regarding the statistics. The subject of insanity in relation to crime and criminal responsibility, is an important one, and it is to such institutions that we look for light in its elucidation. Dr. MacDonald expresses the opinion, in which all will concur, that researches into the physiology and pathology of the nervous system, such as now being conducted, will alone afford an answer to the problem. To gain time to enter upon such examinations, he asks that the medical officers may be relieved from a portion of the non-professional duties, now devolving upon them.

Many repairs and improvements to the buildings are reported, and the pressing wants of the Asylum urged upon the attention of the Inspectors. The report shows that the Doctor enters upon his work with an appreciation of its responsibilities, which gives an assurance that the Institution will be well conducted.

Sixth Annual Report of the Buffalo State Asylum: 1876.

From the report we learn that there has, thus far, been appropriated by the Legislature the sum of \$970,000; that there has been expended \$943,276.83; leav-

ing a balance of \$26,723.17. A change of plan has been made in the terminal buildings, C. D. E., from sandstone to brick, with sandstone trimmings, which will reduce the expense in erecting those wings more than \$100,000. To complete the administration building, and the wings of one side, a further appropriation of \$225,000 is asked. With this amount it is believed that the portion of the Hospital already under construction, can be completed during the present year. This will finish the portion of the building for one sex, and enable the managers to open the Institution for the reception of 300 patients.

We introduce the results of experiments made by order of the Board of Managers, while investigating the question of what boilers are best for steam heating purposes :

HEATING BY STEAM.—TESTS MADE BY PRACTICAL ENGINEERS.—REPORT OF RESULTS, MADE TO THE PRESIDENT OF THE BUFFALO INSANE ASYLUM BOARD OF MANAGERS.—As the buildings of the Buffalo State Asylum for the Insane approach completion, the Board of Managers have had the subject of heating and ventilating them under thoughtful consideration. With a desire that the State should have the benefit of the most approved, safest and economical appliances, propositions were invited for this purpose, and two separate plans were presented for their consideration. One plan represented boilers twenty-six feet long, ninety-six inches diameter of shell, and furnished with twelve 12 inch flues, two 18 inch flues and two 10½ inch flues with steam domes, as used in the State Lunatic Asylum at Utica. The other plan represented boilers twelve feet long, sixty inches diameter of shell with seventy-eight 3 inch flues, as used in the new City and County Hall at Buffalo. As a diversity of opinion existed regarding the comparative merits of these boilers, it was determined to engage the services of two practical engineers of established reputation in this city to make a careful test of the steam-generating powers of each. The report of these gentlemen is herewith presented, and establishes the fact that the large boilers used in the Asylum at Utica are much more effective and economical for heating purposes than

the smaller boilers in use at Buffalo, indicating a saving of over twenty-five per cent. in favor of the large boilers.

Subsequently the attention of the Board was invited to the boilers used in the grape-sugar manufactory of Dr. Firmenich, on Mortimer street, in this city, and who is the inventor of the boilers. A test was also made of these boilers, and is appended to the report.

As these tests are considered of importance in connection with steam-heating, the report is published in full in order that other institutions may have the benefit of the investigation.

REPORT.

BUFFALO, January 2, 1877.

TO JAMES P. WHITE, M. D., President Buffalo State Asylum for the Insane :

DEAR SIR—The undersigned having been appointed by the Board of Managers of the Buffalo State Asylum for the Insane, on the 11th of December, 1876, as a Committee of Experts to make tests of the boilers at the City and County Hall, Buffalo, and at the Utica State Asylum for the Insane, for the purpose of ascertaining their relative merits as steam generators, beg leave to report that we commenced the trial at the City and County Hall, Buffalo, on the 19th of December, continuing for twenty-four hours, the results of which will be found in tabular form, herewith submitted, No. I.; and on December 30th we commenced the trial at the Utica State Asylum for the Insane, continuing eleven hours and fifty minutes, the results of which will be found in tabular form herewith submitted, No. II.

The water and fuel used in both cases were all carefully weighed, and the temperature of the water regularly taken, and it will be seen that the quantity of water evaporated in the test at Utica was accomplished in a little under one half the time it was done in Buffalo and with 1,440 pounds less fuel, thereby showing that one boiler of the same dimensions as those at the Utica Asylum will evaporate more water in the same time than two of those at the Buffalo City and County Hall, and with much less fuel; the results showing a saving of twenty-five per cent. in favor of the boiler at the Utica State Asylum for the Insane.

Yours, very respectfully,

WILLIAM MOSES,

THEODORE C. KNIGHT,

Committee.

Results of test made showing amount of evaporation of water for per pound of coal used December 19th and 20th, at the City and County Hall, Buffalo, N. Y.

TIME.	Temperature of feed water,	Weight of feed water, lbs.	Pres're steam carried, lbs.	TIME.	Temperature of feed water.	Weight of feed water, lbs.	Pres're steam carried, lbs.
A. M. 10.30	40 deg.	768	25	P. M. 10.18	42 deg.	768	25
" 11.00	42 "	768	25	" 10.40	42 "	768	25
" 11.20	42 "	768	25	" 11.00	42 "	768	25
" 11.40	42 "	768	25	" 11.20	42 "	768	25
P. M. 12.05	42 "	768	25	" 11.42	42 "	768	25
" 12.30	42 "	768	25	A. M. 12.03	42 "	768	25
" 12.45	42 "	768	25	" 12.25	42 "	768	25
" 1.00	42 "	768	25	" 12.50	42 "	768	25
" 1.20	42 "	768	25	" 1.08	42 "	768	25
" 1.40	42 "	768	25	" 1.25	42 "	768	25
" 2.00	42 "	768	25	" 1.50	40 "	768	25
" 2.20	42 "	768	25	" 2.10	42 "	768	25
" 2.40	42 "	768	25	" 2.34	40 "	768	25
" 3.00	42 "	768	25	" 2.54	42 "	768	25
" 3.17	42 "	768	25	" 3.18	42 "	768	25
" 3.36	42 "	768	25	" 3.35	42 "	768	25
" 3.50	41 "	768	25	" 3.50	40 "	768	25
" 4.15	41 "	768	25	" 4.15	40 "	768	25
" 4.35	40 "	768	25	" 4.30	41 "	768	25
" 4.55	40 "	768	25	" 4.50	40 "	768	25
" 5.15	40 "	768	25	" 5.10	41 "	768	25
" 5.35	40 "	768	25	" 5.30	41 "	768	25
" 6.00	41 "	768	25	" 5.45	40 "	768	25
" 6.15	42 "	768	25	" 6.15	40 "	768	25
" 6.28	42 "	768	25	" 6.30	42 "	768	25
" 6.47	41 "	768	25	" 6.50	40 "	768	25
" 7.02	41 "	768	25	" 7.08	40 "	768	25
" 7.20	41 "	768	25	" 7.36	40 "	768	25
" 7.41	41 "	768	25	" 7.57	40 "	768	25
" 8.02	42 "	768	25	" 8.16	40 "	768	25
" 8.20	41 "	768	25	" 8.24	40 "	768	25
" 8.40	41 "	768	25	" 8.44	42 "	768	25
" 9.01	41 "	768	25	" 9.04	42 "	768	25
" 9.20	41 "	758	25	" 9.23	43 "	768	25
" 9.39	41 "	768	25	" 9.45	42 "	768	25
" 9.58	42 "	768	25				

Totals and Averages.

Total weight of water evaporated, 54,628 lbs.

Total coal consumed evaporating the above, 7,440 lbs.

Evaporation of water for each lb. of coal used, $7.34\frac{1}{4}$ lbs.

Average temperature of water during trial, 41.3 degrees.

Total weight of clinkers during trial, 330 lbs.

Total weight of ashes during trial, 721 lbs.

Time generating steam to 25 lbs., two hours.

Duration of trial, 24 hours.

Results of test made showing amount of water evaporated for per pound of coal used, December 30th, at the Utica Asylum for the Insane.

TIME.	Temperature of feed water.	Weight of feed water, lbs.	Pres're Steam carried, lbs.	TIME.	Temperature of feed water.	Weight of feed water, lbs.	Pres're Steam carried, lbs.
A. M. 10.00	46 deg.	906	25	P. M. 4.03	44 deg.	906	25
" 10.10	44 "	906	25	" 4.15	44 "	906	25
" 10.20	43 "	906	25	" 4.25	45 "	906	25
" 10.32	43 "	906	25	" 4.33	46 "	906	25
" 10.44	43 "	906	25	" 4.45	46 "	906	25
" 10.55	43 "	906	25	" 4.55	46 "	906	25
" 11.05	43 "	906	25	" 5.06	46 "	906	25
" 11.15	43 "	906	25	" 5.20	46 "	906	25
" 11.30	43 "	906	25	" 5.32	46 "	906	25
" 11.47	43 "	906	25	" 5.44	46 "	906	25
P. M. 12.04	43 "	906	25	" 5.51	46 "	906	25
" 12.15	44 "	906	25	" 6.10	46 "	906	25
" 12.27	44 "	906	25	" 6.22	46 "	906	25
" 12.35	44 "	906	25	" 6.35	45 "	906	25
" 12.45	44 "	906	25	" 6.45	44 "	906	25
" 12.55	44 "	906	25	" 6.57	44 "	906	25
" 1.10	44 "	906	25	" 7.08	44 "	906	25
" 1.20	44 "	906	25	" 7.18	44 "	906	25
" 1.33	44 "	906	25	" 7.31	44 "	906	25
" 1.45	43 "	906	25	" 7.42	44 "	906	25
" 1.56	43 "	906	25	" 7.53	44 "	906	25
" 2.07	43 "	906	25	" 8.05	44 "	906	25
" 2.18	43 "	906	25	" 8.18	43 "	906	25
" 2.30	44 "	906	25	" 8.30	44 "	906	25
" 2.41	43 "	906	25	" 8.41	44 "	906	25
" 2.53	44 "	906	25	" 8.53	44 "	906	25
" 3.05	44 "	906	25	" 9.05	44 "	906	25
" 3.20	44 "	906	25	" 9.18	44 "	906	25
" 3.32	44 "	906	25	" 9.29	44 "	906	25
" 3.42	44 "	906	25	" 9.42	44 "	906	25
" 3.53	44 "	906	25	" 9.50	concluded	trial.	

Totals and Averages.

Total weight of water evaporated, 55,266 lbs.

Total coal consumed evaporating the above, 6,010 lbs.

Evaporation of water for each lb, of coal used 9.18 $\frac{1}{4}$ lbs.

Mean degree of temperature of feed water during trial, 44.147 degrees.

Total weight of clinkers during trial, 133 lbs.

Total weight of ashes during trial, 355 lbs.

Duration of trial 11 hours and 50 minutes.

Results of test made showing amount of water evaporated for each pound of coal used, with boiler at Firmenich's Sugar Refinery, Buffalo, January 14th, 1877.

TIME.	Tempera- ture of feed water.	Weight of feed water, lbs.	Pres're steam carried, lbs.	TIME.	Tempera- ture of feed water,	Weight of feed water, lbs.	Pres're steam carried, lbs.
A. M. 8.55	38 deg.	768	25	P. M. 12.59	38 deg.	768	25
" 9.05	38 "	768	25	" 1.14	38 "	768	25
" 9.23	38 "	768	25	" 1.26	38 "	768	25
" 9.32	38 "	768	25	" 1.38	38 "	768	25
" 9.42	38 "	768	25	" 1.54	38 "	768	25
" 9.53	38 "	768	25	" 2.05	38 "	768	25
" 10.07	38 "	768	25	" 2.16	38 "	768	25
" 10.19	38 "	768	25	" 2.27	38 "	768	25
" 10.29	38 "	768	25	" 2.40	38 "	768	25
" 10.38	38 "	768	25	" 2.52	38 "	768	25
" 10.48	38 "	768	25	" 3.03	38 "	768	25
" 11.03	38 "	768	25	" 3.15	38 "	768	25
" 11.13	38 "	768	25	" 3.28	38 "	768	25
" 11.21	38 "	768	25	" 3.45	38 "	768	25
" 11.30	38 "	768	25	" 3.53	38 "	768	25
" 11.48	38 "	768	25	" 4.10	38 "	768	25
P. M. 12.02	38 "	768	25	" 4.20	38 "	768	25
" 12.14	38 "	768	25	" 4.31	38 "	768	25
" 12.20	38 "	768	25	" 4.38	38 "	768	25
" 12.32	38 "	768	25	" 4.50	concluded	test	
" 12.47	38 "	768	25				

Totals and Averages.

Total weight of water evaporated, 30,720 lbs.

Total coal consumed evaporating the above, 3,388 lbs.

Pounds of water evaporated for each lb. of coal used, 9.01.

Mean temperature of water during test, 38 degrees.

Weight of clinkers, 92½ lbs.

Weight of ashes, 115 lbs.

Duration of test, 7 hours and 55 minutes.

Showing water evaporated per hour during the three tests made.

At Utica Insane Asylum, 4,670.36 lbs.

At Firmenich's Refinery, 3,880.42 lbs.

At City and County Hall, 2,276.17 lbs.

Amount of coal used per hour during trial.

At Utica Insane Asylum, 508.65 lbs.

At Firmenich's Refinery, 427.96 lbs.

At City and County Hall, 310 lbs.

Dimensions of Firmenich's boiler.

Two lower drums 24 inches diameter 13 feet long, three upper drums 36 inches diameter 13 feet long, 132 flues 4 inches diameter 16 feet long.

At the commencement of this test, the fire was not so clean as on the other occasions, which ought to be considered in favor of this boiler.

WILLIAM MOSES,
T. C. KNIGHT.

NEW YORK. *Report of the Kings County Lunatic Asylum: 1876.*
Dr. JAMES A. BLANCHARD.

There were in the Asylum, at date of last report, 766 patients. Admitted since, 314. Total, 1,080. Discharged recovered, 115. Improved, 62. Unimproved, 31. Died, 62. Total, 270. Remaining under treatment, 810.

The most pressing needs of the Asylum are additional accommodations, and an increase in the medical staff, which now consists of a superintendent and one assistant physician to care for more than eight hundred patients.

NEW JERSEY. *Annual Report of the New Jersey State Lunatic Asylum: 1876.* Dr. JOHN W. WARD.

There were in the Asylum, at date of last report, 704 patients. Admitted since, 231. Total, 935. Discharged recovered, 68. Improved, 51. Unimproved, 2. Escaped, 2. Died, 48. Transferred to State Asylum at Morris Plains, 292. Total, 463. Remaining under treatment, 472.

This large transfer of patients to the new State Asylum, at Morris Plains, relieves the Institution of its overcrowding, and of a great number of chronic cases, and furnishes room for the reception of recent cases of insanity. The Institution is placed in a much better working condition, and will undoubtedly be able to show more encouraging results in the treatment of patients. We are glad to record the testimony given as to the harmlessness and value of the chloral hydrate, as a remedy in insomnia.

"As a *hypnotic* no remedy has as yet been found to substitute the hydrate of chloral. It is safe and prompt in its action, and its exhibition is followed by none of those unpleasant symptoms that usually result from the free administration of the opiates."

NEW YORK. *Eighth Annual Report of the Willard Asylum for the Insane*: 1876. Dr. JOHN B. CHAPIN.

There were in the Asylum, at date of last report, 1,003 patients. Admitted since, 277. Total, 1,280. Discharged recovered, 3. Improved, 22. Unimproved, 20. Died, 65. Total, 110. Remaining under treatment, 1,170.

NEW JERSEY. *Report of the State Asylum at Morristown*: 1876. Dr. H. A. BUTTOLPH.

This is the first annual report of the Superintendent, and covers the time from the opening of the Asylum, August 17 to November 1, 1876.

There were received 346 patients. Discharged recovered, 2. Improved, 1. Died, 1. Total, 4. Remaining under treatment, 342.

Of the whole number of patients 292, were transferred directly from the Asylum at Trenton; these were mostly chronic cases which belonged to that portion of the State for whose benefit the new Institution was erected.

The causes of insanity, both predisposing and exciting are commented upon, and remarks are made upon the treatment of patients after admission to the Asylum and also upon provision for, and the cost of supporting the insane. Appended to the report is a description of the new Asylum, buildings, fixtures &c.

PENNSYLVANIA. *Report of the Pennsylvania Hospital for the Insane*: 1876. Dr. THOMAS S. KIRKBRIDE.

There were in the Hospital, at date of last report, 419 patients. Admitted since, 260. Total, 679. Dis-

charged recovered, 93. Improved, 72. Unimproved, 50. Died, 50. Total, 265. Remaining under treatment, 414.

For eight years there has been some form of entertainment for the patients every evening during nine-tenths of the year. This arrangement has proved so beneficial and has seemed so important to the managers of the Hospital, that hereafter it will be continued by an established rule of the Institution. The exhibition of stereoscopic views constitutes the basis, and occupies most of the time, while the remainder is filled up by concerts, lectures, &c.

Many improvements to the grounds and buildings, especially in the laundry and kitchen, are noted. The property has been greatly enhanced in value by the municipal improvements which have been made in that section of the city and about the hospital grounds. The direction in which expenditures will be required in the future is indicated. A new addition to the women's part to correspond with the Fisher ward is required. Some of the wards in the men's department are to be renovated and new heating apparatus must be supplied.

The report closes with an account of the centennial year, enumerating the pleasant results to the patients of the Hospital, who enjoyed frequent visits to the Exposition, and also from the many friends, acquaintances and strangers attracted to the city. Another pleasant feature of the season was the visit of so many medical men in attendance upon the various conventions in the city. Among these was the meeting of the Association of Medical Superintendents. A concise statement of the principles enunciated by this body of experts regarding the erection and management of Asylums concludes the report.

PENNSYLVANIA. *Annual Report of the Western Pennsylvania Hospital:* 1876. DR. JOSEPH A. REED.

There were in the Hospital, at date of last report, 491 patients. Admitted since, 193. Total, 684. Discharged recovered, 74. Improved, 52. Unimproved 30. Died, 46. Total, 202. Remaining under treatment, 482.

The record of the year is one of a large number of improvements and additions both within the hospital buildings and on the farm and grounds. Many of them are of an important character, and such as will add much to the efficiency of the Institution. The remarks of the report deal principally with the labor question, showing the value of occupation as a curative remedy, and as a measure of economy to the State. We quote the results of the experiment with colored light, as a means of treatment of the insane, as proposed by Dr. Ponza, of Italy. As this is attracting much attention at the present time, and is being extensively discussed, especially in the newspapers and in periodical literature, we feel confident that every reliable scientific information will be gladly received.

“Believing that the insane should have the benefit of every agency that promises relief, I was induced to experiment on the influence of colored light in their treatment. For this purpose the walls of several rooms were painted scarlet, and the window glass made of a corresponding color. The walls and windows of other rooms were colored blue, and after giving several excited patients the benefit of the blue room, and to melancholy and depressed patients the advantages of red light, I have not been impressed with the importance of this mode of treatment. On the contrary, I am satisfied that colored light has no greater power in the cure of insanity, than colored water has in the treatment and cure of the diseased stomach of an inebriate.”

PENNSYLVANIA. *State Hospital for the Insane, Danville*: 1876.
Dr. S. S. SHULTZ.

There were in the Hospital, at date of last report, 260 patients. Admitted since, 133. Total, 393. Discharged recovered, 21. Improved, 16. Unimproved, 23. Died, 22. Total, 82. Remaining under treatment, 311.

The most important fact recorded in the report is the completion of the north wing of the building, the one occupied by the male patients, thus adding twenty-five per cent. to the accommodations of this sex, and relieving the great overcrowding to which the Institution has been subjected since its opening. The wards for women are largely deficient in accommodations for the number now in the house, and an appropriation of \$140,000 is asked, to finish this portion of the Hospital.

MARYLAND. *Report of the Maryland Hospital for the Insane*: 1876. Dr. JOHN S. CONRAD.

There were in the Hospital, at the beginning of the year, 171 patients. Admitted since, insane, 105. Dip-somaniacs, 63. Total, 339. Discharged, 141. Remaining under treatment, 198.

MARYLAND. *Thirty-fourth Annual Report of the Mount Hope Retreat*: 1876. Dr. W. H. STOKES.

There were in the Retreat, at date of last report, 297 patients. Admitted since, 118. Total, 415. Discharged recovered, 52. Improved, 37. Unimproved, 3. Died, 21. Total, 113. Remaining under treatment, 302.

The advantage of treatment in an asylum is now claimed to be a well established fact, but the difficulty attending the removal of patients to institutions, owing

to the fears of friends, are recognized. This feeling exists especially in cases of partial insanity, or monomania, a form of mental disorder which is usually of a chronic character, and often entails a great amount of misery and suffering upon families. The fears expressed are, usually, that the patient will never forgive his being sent to an asylum, and, secondly, that he will certainly be driven mad by the association. The incorrectness of these views is pointed out. Dr. Stokes proclaims his belief in the influence of medical treatment of insanity, founded upon and strengthened by thirty-five years of experience in the care of the insane. The moral treatment is not neglected, but is summoned to the aid of other remedial measures. The wards of the Retreat are all enlivened by pictures, and furnished to promote the comfort and cheerfulness of the inmates, while all the ordinary modes of entertainment and amusement are employed. To these measures must be added the kindly care of the Sisters, who devote themselves to the relief of the afflicted people who seek their aid.

VIRGINIA. *Report of the Western Lunatic Asylum: 1876.* Dr. R. F. BALDWIN.

There were in the Asylum, at date of last report, 356 patients. Admitted since, 67. Total, 423. Discharged recovered, 37. Improved, 7. Unimproved, 2. Died, 19. Total, 65. Remaining under treatment, 358.

The table of rejected applications presents a sad picture. Persons rejected, 157. Persons admitted, 67. Total applicants, 224. Number rejected who were rejected last year, 37. Number admitted who were rejected last year, 2. This leaves 155 rejected applications for the year. Of these 118 made application for admission for the first time, and a large majority had

passed beyond the curable stage. It is a great injustice that so large a proportion of cases are necessarily rendered incurable for lack of accommodation. The system of furloughs has been continued during the year, with the result, as the report states it, of relieving the asylum of nine cases, reported in the table of removals as, improved, seven, and unimproved, two. The other side of the account is one suicide just as a patient was completing his month's furlough.

The paper which Dr. Baldwin read before the Association of Superintendent's, in June last, upon this subject, is given as an appendix to the report. The substance appears in the discussion in the proceedings, printed in the October number of the JOURNAL.

WEST VIRGINIA. *Biennial Report of the West Virginia Hospital for the Insane*: 1875-6. Dr. T. B. CAMDEN.

There were in the Asylum, at date of last report, 345 patients. Admitted since, 176. Total, 521. Discharged recovered, 50. Improved, 16. Unimproved, 3. Died, 55. Total, 124. Remaining under treatment, September 30, 397.

The report records the current repairs, and some improvements to the buildings; that the capacity of the Asylum is now fully taxed, and the outlook for admissions, in the future, at all corresponding to the demand, as discouraging. The cost per capita per week, is \$2.38.5. An epidemic of typhoid fever occurred during the year 1875. There were 20 cases of the disease, and two deaths among the attendants. The cause was readily traced to defective sewerage. A wooden sewer gave way, and the contents being discharged, were forced up to the near vicinity of the building, by a rise of water caused by a freshet. The sewer was re-laid by use of earthen-ware pipes. The near comple-

tion of the building for the colored insane is noted. A general record of the routine of occupation and amusements of patients closes the report.

ALABAMA. *Sixteenth Annual Report of the Alabama Insane Hospital*: 1876. Dr. PETER BRYCE.

There were in the Hospital, at date of last report, 352 patients. Admitted since, 95. Total, 447. Discharged recovered, 40. Improved, 12. Unimproved, 7. Died, 21. Total, 80. Remaining under treatment, 367.

Dr. Bryce makes the death of two patients, one by drowning, and one by strangulation, the occasion of remarks upon the subject of melancholia, which since the war, he thinks is the more common form of mental disorder in the patients, who have come under his observation. From what is said upon the subject of the moral treatment of patients, we infer that considerable difficulty is experienced in employing a steady, faithful class, as attendants in the Asylum. This we should attribute to the unsettled condition of the country, rather than to any "inherent defect in the American character and disposition, to satisfactorily perform the duty of the position." This is well proved by the fact that in the more settled portions of the country, there is no trouble in finding competent persons, willing to work for the wages given, and who make excellent attendants.

TEXAS. *Report of the Texas State Lunatic Asylum*: 1876. Dr. D. R. WALLACE.

There were in the Asylum, at date of last report, 152 patients. Admitted since, 109. Total, 261. Discharged recovered, 36. Improved, 8. Unimproved, 6. Died, 10. Total, 60. Remaining under treatment, 201.

This report of Dr. Wallace records the progress made in the Texas Asylum, in the improvements of the buildings, in adding to the comforts of patients and increasing the appliances and means of treatment of the insane. This is highly gratifying; the advantage and indeed necessity for early treatment is fully appreciated and appropriately enforced upon the public mind, and every effort is made to receive all the acute cases and such others as demand care in an asylum. An addition has been made furnishing room for thirty-six patients and an assembly room, a want which has long been felt. The whole cost was about \$7,000, or exclusive of the assembly room, about \$200 per patient. A new laundry has been erected, and gas introduced for lighting the buildings. All of these improvements indicate a determination to increase the advantages of the Asylum and show the enterprise and spirit of progress which controls its present management.

TENNESSEE. *Eleventh Biennial Report of the Tennessee Hospital for the Insane*: 1875 and 1876. Dr. JOHN H. CALLENDER.

There were in the Hospital, at date of last report, 374 patients. Admitted during biennial term, 207. Total, 581. Discharged recovered, 91. Improved, 35. Unimproved, 9. Escaped, 8. Died, 50. Total, 193. Remaining under treatment, 388. Of these 342 are white, and 46 colored.

KENTUCKY. *Annual Report of the Central Kentucky Lunatic Asylum*: 1876. Dr. C. C. FORBES.

There were in the Asylum, at date of last report, 269 white, and 68 colored patients. Total, 337. Admitted since, 138 white, and 36 colored, 174. Total, 511. Discharged recovered, 43 white, and 12 colored. Improved, 15 white. Unimproved, 10 white. Escaped,

2 white, and 2 colored. Died, 43 white, and 15 colored. Total. 142. Remaining under treatment, 294 white, and 75 colored. Total, 369.

The Institution is laboring under great disadvantages for want of means. The per capita of \$200 per patient per year, must care for them, pay for the medical administration, and furnish, keep in repair, and provide for all alterations and improvements to the buildings. This has so far been accomplished, only by an economy which, in a State institution, might properly be called parsimony. The most important and vital improvement of the past year was the enlargement of the reservoir, to adapt it to the increased demands of the additional number of patients. A little more than three years ago this Asylum was by law filled with chronic cases of insanity, epileptics and idiots, and though the status of the Hospital has been changed to that of a general asylum for the insane and it has been enlarged to receive all the patients from a given section of the State, it is still encumbered and hampered in its operations by this unfortunate legacy. Besides all this it is one of two asylums of the State which receive the colored insane. All of these classes must furnish a variety difficult to classify and to care for. Some relief is sought in additional legislation. This we hope will reduce, if not entirely relieve the existing complications.

KENTUCKY. *Report of the Eastern Kentucky Lunatic Asylum:*
1876. Dr. R. C. CHENAULT.

There were in the Asylum, at date of last report, 463 white, and 63 colored patients. Total, 526. Admitted since, 84 white, and 15 colored. Total, 99. Discharged recovered, 35 white, and 8 colored, 43. Improved, 11 white. Unimproved, 9 white. Died, 19

white and 4 colored, 23. Total, 91. Remaining under treatment, 468 white and 66 colored patients. Total, 534.

Changes in the law regulating the admission and the discharge of patients are suggested. These are intended to provide for the immediate reception of the more acute and hopeful cases, and the removal of the chronic class and idiots. Several improvements during the year are recorded with satisfaction, especially those in the laundry, which have largely increased the facilities for labor, and added to the comfort of those employed. Several alterations are recommended, which will add to the appearance of the buildings, and improve its sanitary condition.

MISSOURI. *Report of the St. Louis County Insane Asylum: 1876.*
Dr. N. de V. HOWARD.

There were in the Asylum, at date of last report, 320 patients. Admitted since, 120. Total, 440. Discharged recovered, 45. Improved, 4. Unimproved, 5. Died, 16. Not insane, 5. Total, 75. Transferred to insane department county farm, 50. Remaining under treatment, 315.

The percentage of recoveries upon all admissions is 37.5, and in recent cases of less than one year's duration, 90. The remarks upon medical and general treatment are certainly judicious, and the principles which govern in the management of the insane can only be commented upon approvingly.

For diet for the sick and debilitated, prominence is given to the use of beef essence, and we are informed that as much as one hundred pounds of beef per day have been consumed in its preparation. Without any knowledge of the number of patients who have taken it, we are left entirely in the dark as to the amount ad-

ministered to each, or with what other articles of diet it is combined.

The wants of the institution are numerous, and many of them such as to call for speedy relief. For the accommodation of the chronic, quiet class the Doctor recommends the erection of cheap pavilions as has already been done on Blackwell's Island, and in support, quotes the opinion of Dr. Nichols as presented in his paper before the Medical Congress on provision for the chronic class. Request is made for authority to prepare some rooms with glass of various colors to make trial of the method of treatment suggested by Prof. Ponza.

MISSOURI. *Biennial Report of the Missouri State Lunatic Asylum, No. 1, at Fulton: 1875-76.* Dr. T. R. H. SMITH.

There were in the Asylum, at date of last report, 338 patients. Admitted since, 288. Total, 626. Discharged recovered, 145. Improved, 38. Unimproved, 23. Died, 70. Total, 276. Remaining under treatment, 350.

Labor has been continued during the biennial period upon the grounds of the Asylum, which have been much improved. The buildings have been kept in repair, an ice house erected, and a pond prepared, which places the question of a full water supply, beyond a peradventure. The greatest difficulty the management has to contend with, is the matter of finances. Appropriations from the State can only be obtained long after they are made, and payments from the counties are usually largely in arrears. As much as \$45,000 is outstanding at the present time. When made, payments are often in county warrants, which have a value much below their face. Large sums are lost by being obliged to pay interest upon purchases made by the Asylum.

The proposition is urged to return to the former method of levying an asylum tax upon State property, and admitting all patients free. An explanation is given of the reasons why the conduct of such Institutions is expensive, and some general remarks made upon the management. To do away with the suspicion which is so common in the public mind, persons are invited to visit and inspect the Asylum, with the hope of their gaining information, but not of gratifying a morbid curiosity. There have been several changes in the subordinate officers, two of whom, a steward and a matron, have been removed by death.

MISSOURI. *Biennial Report of the Missouri State Lunatic Asylum, No. 2: 1875-76.* Dr. GEORGE C. CATLETT.

Admitted to the Asylum, 1875, 169—1876, 124. Total, 293. Discharged recovered, 73. Improved, 28. Unimproved, 8. Died, 28. Eloped, 2. Not insane, 4. Total, 143. Remaining under treatment, 150.

The Institution can accommodate 250 patients. The great majority thus far received, have been chronic cases. As the room has not all been demanded for residents of the State, patients from the neighboring states of Kansas and Colorado have been admitted.

The report is largely taken up with a history of the defects and deficiencies of the original construction, and of the necessary repairs and additions. The views of the nature and treatment of insanity adopted are stated, and some of the difficulties attending the opening of a new institution enumerated. Experience here does not differ essentially from that testified to by others in like circumstances.

KANSAS. *Twelfth Annual Report of the Kansas State Asylum:*
1876. Dr. A. H. KNAPP.

There were in the Asylum, at date of last report, 111 patients. Admitted since, 75. Total, 186. Discharged recovered, 11. Improved, 8. Not insane, 1. Died, 10. Eloped, 1.

The managers report that the changes made during the year have added 138 beds to the Asylum, and increased its capacity to 230. This has been done at a per capita rate of \$735. The hot air furnaces were found to be in a very unsafe condition, from long use, and from the reckless manner in which they were originally put up. "The floor joists were found in close contact with the iron work, and were extensively charred." This is deserving of the severest censure; that the danger was not over estimated, was shown by the fact that in March, a fire actually occurred, which caught in this way. Fortunately it was extinguished with little loss. This condition necessitated the expenditure for a boiler and radiators to replace the furnaces. To reimburse the Institution, an appropriation is asked for.

A strong plea is made for increased accommodations. Applications have been made for 218 patients, of which but 75 could be received. The Institution is lacking in many of the conveniences and necessities for the most successful results. A penny wise and pound foolish system seems to have been adopted in the appropriations in aid of the Asylum. It owns a large farm of 220 acres which is practically unimproved for want of means to fence it, and appliances for its cultivation. Instead of raising the vegetables required for consumption in the house, they must be purchased, and even pasturage for the stock must be obtained from the neighboring farmers. The most serious loss is that of

occupation for patients, which deprives the Institution of one of its most effective means of treatment.

Perhaps nothing gives a better idea of the condition of the Asylum, than the following extract :

“Just think of it—an Insane Hospital in Kansas, the greatest and noblest of its charities, having claims upon the State bounty far beyond, and out of all comparison with other charities, twelve years after its organization, and yet deprived of nearly all, not mere conveniences and such things, but essential requisites of a hospital for the insane.”

OHIO. *Annual Report of the Longview Asylum*: 1876. Dr. W. H. BUNKER.

There were in the Asylum, at date of last report, 592 patients. Admitted since, 175. Total, 767. Discharged recovered, 60. Improved, 27. Unimproved, 15. Died, 51. Total, 153. Remaining under treatment, 613.

There are now in the Institution 200 patients more than its proper capacity. The recommendations for the erection of additional buildings have so far been unheeded, and there are no cheering prospects of an immediate provision.

OHIO. *Twenty-second Annual Report of the Cleveland Hospital for the Insane*: 1876. Dr. J. STRONG.

There were in the Hospital, at date of last report, 484 patients. Admitted since, 279. Total, 763. Discharged recovered, 92. Improved, 39. Unimproved, 31. Died, 31. Not insane, 5. Total, 198. Remaining under treatment, 565.

The total capacity of the Hospital is 600, while the number of insane of the district is 1,000. This leaves 400 or nearly one-half the whole number without Asylum accommodations; these are now cared for in the various county institutions. For their care the recom-

mendation is made, that plain substantial buildings, properly arranged, and provided with the essentials for health and comfort be erected upon the grounds of the State institutions and controlled by the same management, though separated therefrom; the advantages which would accrue from carrying out the proposed plan are fully set forth.

The remarks upon the topics "abandoned by friends" and "encouragement after discharge," state facts familiar to all connected with institutions for the insane. The neglect of friends discourages and retards the recovery of patients, and is too often the result of a spirit of selfishness which induces persons to put upon the public a responsibility which they should at least share if not entirely assume. The suspicion with which the discharged patient is sometimes viewed, is another discouragement potent for evil, and at times is of itself sufficient to bring on a relapse. Its most disastrous result is to the patient whose convalescence has not terminated, but who still needs an encouraging word and a helping hand. These withheld, he loses all that has been gained, and sinks into a condition, less hopeful of recovery and from which he may never again emerge. This is the history and this the cause of some of the large class of readmissions to asylums.

The improvements of the year of the most vital importance are the new water supply and the erection of works for the manufacture of gas. This is now supplied at a cost of \$1.40 per thousand, and the method is recommended on the ground of economy and certainty of the supply.

OHIO. *Annual Report of the Athens Hospital for the Insane:*
1876. Dr. RICHARD GUNDRY.

There were in the Asylum, at date of last report, 618 patients. Admitted since, 241. Total, 859. Dis-

charged recovered, 98. Improved, 21. Unimproved, 25. Transferred, 1. Died, 54. Total, 200. Remaining under treatment, 659.

The Doctor remarks upon the influence of the critical epochs of life in the mental and physical development of the individual. These periods thus marked by characteristic changes, are those from childhood to puberty, those which occur in the female at marriage, at maternity, at the climacteric, and in the male in the transition from mature manhood to age. The evolution attending these epochs, carried out in perfection, results, he says, in mental health, and in the perfection of individual character, but let these developments be arrested or prevented, the mental balance may be disturbed in degree varying from the slightest moral or intellectual perversion to insanity. Then follows the Doctor's views of insanity and its causes.

“Physical causes are said to operate in the production of insanity through the deterioration of brain tissue by enervation. The moral causes, so called, are no less potent in producing like enervating effects, and principally by the law of attention, being thereby concentrated upon certain points of the nervous organization, for Bonnet defines ‘attention to be the certain exercise of motive force of the mind upon the fibres of the brain,’ and we know that in this way many physical symptoms are but expressions of the emotional condition. Grief destroys the nutritive properties of the milk. Fear blanches the cheek, arrests the circulation, and relaxes the organic muscles, &c.”

Although in advocacy of the theory of the moral causation of insanity, reference is made to the influence of the emotions on the physical organization, yet the only support to the theory is found in a supposition in the form of a negative question, as follows :

“Is it not reasonable to suppose that their action (of strong emotion) may act directly upon the cerebral tissue in the production of insanity in some cases, when, as we have seen, they act through

that agency in producing the changes alluded to? It is true they more often act indirectly, by attacking the nutritive processes, thus, by tampering with the supplies, reducing the brain to a diseased condition."

We have quoted the language used that our readers might judge for themselves of the strength of the position assumed, and of the support given by the argument. If the theory of moral causation is reduced to such a strait, then certainly there is not much left to sustain it, and we may predict its speedy disappearance.

MICHIGAN. *Report of the Board of Commissioners of the Eastern Asylum for the Insane, State of Michigan: 1876.*

Labor has been continued on the Asylum at Pontiac; an elevation and ground plan of which is presented in the report. The plan resembles in its general features that of the Asylum at Kalamazoo, and is calculated to accommodate 330 patients. An appropriation of \$400,000 was made with the proviso that the cost of the buildings should not exceed that sum. The first serious embarrassment was found in the inability to utilize the water from springs, which it was thought would furnish an abundant supply. An attempt is now being made to get water from an artesian well sunk upon the premises. A failure in this will result in a large expenditure to get a full supply from another source.

MICHIGAN. *Report of the Michigan Asylum for the Insane: 1875-1876.* Dr. E. H. VAN DEUSEN.

There were in the Asylum, at date of last report, 481 patients. Admitted since, 535. Total, 1,016. Discharged recovered, 129. Improved, 108. Unimproved, 96. Died, 65. Total, 398. Remaining under treatment, 618.

In addition to the tables usually presented are two of special interest. One of them is a detailed statement

of the receipts and disbursements of the Asylum since the date of its organization in April, 1859. These are classified into current expense, construction, extension and special appropriation, accounts. From the other table we learn that during the last six months, of a daily average of 610 patients, 49 were confined to their beds, 464 took medicine, 187 had special diet, 27 suffered from convulsions, and 340 were usefully employed. This gives more than fifty per cent. of the average number under treatment who occupied themselves in some form of labor. None of them, however, learned trades, which, it is claimed, is so often done in the English asylums. The reason given is one found operative in nearly all our American institutions—the duration of treatment will not permit it.

INDIANA. *Annual Report of the Indiana Hospital for the Insane*: 1876. DR. ORPHEUS EVARTS.

There were in the Hospital, at date of last report, 554 patients. Admitted since, 489. Total, 1,043. Discharged recovered, 263. Improved, 36. Unimproved, 64. Not insane, 1. Died, 79. Total, 443. Remaining under treatment, 600.

Progress is reported upon the new "Department for Women." The building will, when completed, provide room for more than six hundred patients, and it is claimed, will rank with the best known hospitals of modern construction in the world. The Managers of the present Asylum are the Building Commissioners. Application is made for appropriations to keep up the repairs of the Hospital, and also to provide a telegraphic communication with the city. This is of great importance, and from its obvious advantages, should not be delayed.

Dr. Evarts has given an explanation of the expression employed by him in the discussion of the question of

restraint at the meeting of the Association in Nashville, in 1875, and which was quoted by Dr. Bucknill in his letters upon American Asylums. "I know of no other object in sending an insane person to a hospital than that of restraint." It could, in fairness, only mean, "that general and comprehensive restraint, incident to the buildings, discipline, and prevailing methods of treatment," and in this sense a similar statement has often been made. The Doctor states the difference in opinion between the British and American specialists as one purely professional. "It is not one of humanity, but of professional judgment, as much so, as the practice of medication."

ILLINOIS. *Fourth Biennial Report of the Illinois Hospital for the Insane:* 1876. Dr. A. E. KILBOURNE.

There were in the Hospital, at date of last report, 214 patients. Admitted since, 541. Total, 755. Discharged recovered, 92. Improved, 81. Unimproved, 61. Not insane, 1. Died, 57. Total, 292. Remaining under treatment, 463.

A large percentage, 208 in number, of the admissions, are chronic cases belonging to this district, transferred from the other asylums of the State. These were provided for by the completion of additional wings. By a recent law which takes effect in July, 1877, all of the patients in the State Institutions become a public charge, which renders appropriations necessary for the entire expenses of the Asylum.

The improvements and repairs made during the twenty-two months covered by the report, are numerous and given in detail. The requirements are such as indicate the incompleteness of the Institution, in some directions of primary importance, to its successful operation. These are additional facilities for drying

clothing; enlargement of the amusement room; a refrigerating room for preservation of provisions; soft water reservoirs; barns for stock and straw; work shops, and improvements in the heating apparatus. The Doctor recommends the appointment of a pathologist with the necessary conveniences. For these various purposes appropriations are asked. Some remarks upon visits to the Hospital, correspondence, diet, and an acknowledgement of favors received close the report.

WISCONSIN. *Annual Report of the Wisconsin State Hospital for the Insane*: 1876. Dr. D. F. BOUGHTON.

There were in the Hospital, at date of last report, 376 patients. Admitted since, 181. Total, 557. Discharged recovered, 34. Improved, 40. Unimproved, 105. Died, 20. Total, 199. Remaining under treatment, 334.

Dr. Boughton reports the completion of the rear wing of the Hospital which contains an assembly room for entertainments, and rooms for outside employes. Among the most important requisites for the proper administration of the Hospital is a fuller supply of water. For seventeen years, or since the opening of the Asylum an artesian well has been the only reliance and the amount furnished, limited at first, has grown more scanty and uncertain. The Institution stands upon the lake shore, with a broad expanse of pure water about it. The wonder is that this was not drawn upon at the beginning. A pipe is now being laid to extend for five hundred feet into the lake where the water is clear and pure. Extensive repairs are in contemplation which are required by long use and neglect.

A medical library and a laboratory for special scientific work are much desired and asked for in the report. Much of the insanity in the State is accounted

for by the presence of a large foreign element, as statistics show that among this class, the number of the insane is three times as large as among the native born citizens.

WISCONSIN. *Annual Report of the Northern Hospital for the Insane*: 1876. Dr. WALTER KEMPSTER.

There were in the Hospital, at date of last report, 276 patients. Admitted since, 328. Total, 604. Discharged recovered, 30. Improved, 25. Unimproved, 11. Died, 32. Not insane, 3. Total, 101. Remaining under treatment, 503.

Much attention has been given to the hereditary predisposition to insanity, as found in the patients admitted to the Hospital, and several strongly marked instances are reported. Of the admissions for the year twenty-six per cent. had insane relatives and sixteen per cent. had insane parentage. A short history of insanity and the treatment of the insane, from the earliest Biblical times to the present, giving special prominence to the hospital provision of our own century, forms a large part of the report. The table accompanying this sketch, giving the date of opening, location and number of patients in each of the institutions of the United States is a valuable feature. These are ninety-six in number, and all but four were established since the beginning of the present century.

The results of experience and experiments in warming the Hospital show conclusively the superior advantage of large boilers and cast-iron radiators over small boilers and the coil piping, both in economy in use of coal and in heating power.

“Speaking in general terms it requires about twice as much coal for one system as it does for the other. The economy of the new system (of cast-iron blocks and large boilers) is apparent and I can

not refrain from expressing the hope that you will deem it expedient to ask for an appropriation which will cover the cost of making a change."

This method of heating was introduced into the Asylum at Utica among the first institutions in the country, and the experience of the Hospital at Oskosh confirms the advantages of its use. Such repairs and alterations have been made as are calculated to keep up the efficiency of the Institution and prevent deterioration. Dr. Kempster continues the pathological investigations as in previous years and sums up the progress made.

"A laboratory has been founded and is already yielding important results; scientific instruments have been obtained for the full examination of all that pertains to the department of medicine and its connection with the pathology of insanity."

MINNESOTA. *Tenth Annual Report of the Minnesota Hospital for the Insane*: 1876. Dr. C. K. BARTLETT.

There were in the Asylum, at date of last report, 434 patients. Admitted since, 253. Total, 687. Discharged recovered, 62. Improved, 41. Unimproved, 10. Died, 44. Total, 157. Remaining under treatment, 530.

The new Hospital is now completed and fully occupied. To furnish further accommodations it has been thought best to repair the old temporary structure in the village. The intention had been to give up the old quarters as soon as the permanent buildings were ready, but the continued demand for admission induces this action. A proposition is made to the Legislature to erect another institution to keep pace with the necessities of the times. Dr. Bartlett in speaking of this constant pressure upon asylums, does not consider it a proof of an actual increase in the disease, but suggests

that the longer life of the chronic insane arising from the superior care in modern asylums will largely account for the number at present under treatment and applying for admission.

NEBRASKA. *Annual Report of the Nebraska Hospital for the Insane*: 1876. Dr. F. G. FULLER.

There were in the Hospital, at date of last report, 61 patients. Admitted since, 72. Total, 133. Discharged recovered, 30. Improved, 5. Unimproved, 1. Escaped, 1. Died, 3. Total, 40. Remaining under treatment, 93.

There is nothing, perhaps, which presents in so striking a manner the rapidity of our national growth, as such a fact as we find recorded in this report. Of the one hundred and thirty-three patients which have been treated in the Hospital during the year, but *one* was a native of the State of Nebraska, while nearly fifty per cent. were foreign born. Here we have, in less than one generation, a State government with the accessories of an older civilization, even to its charitable institutions, and in the sixth year of the existence of its Hospital for the Insane, there is only one native resident within its wards; and still, during the year eight of its patients were between twelve and twenty years of age.

A new wing has just been added to the building, and the number of patients is larger by one-half than it was the last year; still, the report informs us that the men's wards are greatly overcrowded, and the women's wards will soon be in the same condition, and that there are now in the State, outside the care of the Asylum, more than one hundred chronic cases—and this furnishes the basis of an appeal for more room. This is the almost universal report from all of the States of

the Union, and when the necessities of the various institutions, and the urgency of the demands for further accommodations are brought together, as in this review, the repetition becomes wearying and discouraging. The confidence of superintendents and managers of asylums in the benevolence and humanity of the people—a confidence rarely misplaced—and their faithfulness to trust, persistent patience, and continuance in the performance of duty, amid all the depressing circumstances of their positions, furnish a bright side to an otherwise gloomy picture.

Ninth Annual Report of the Inspector of Asylums, Prisons and Public Charities for the Provinces of Ontario: 1876. Hon. JOHN W. LANGMUIR.

This report of the Inspector contains the reports of the four Lunatic Asylums of the Province, viz: of Toronto, London, Kingston, and the new institution located at Hamilton. The latter was originally built for an Inebriate Asylum, but, owing to the pressure for the accommodation of the insane, was diverted from its original purpose, and changed to an asylum for chronic patients. The admission of this class to the exclusion of acute cases, was necessitated by the style and character of the buildings. The Institution was opened on the 17th of March, 1876. To the end of the fiscal year, September 30, 211 patients had been received. The report abounds in the recital of the difficulties experienced in the workings of the Asylum, incidental to the change of purpose in its use. These can be in part remedied, and a recommendation is made for the construction of two additional wings, built and arranged for the care of insane patients.

The report of the London Asylum, shows that there were in the Asylum, at date of last report, 629 patients.

Admitted since, 115. Total, 744. Discharged recovered, 26. Improved, 9. Unimproved, 4. Eloped, 1. Died, 36. Transferred to other asylums, 85. Total, 161. Remaining under treatment, 583.

The Inspectors' report contains various recommendations, looking to necessary repairs in the buildings—to remedy the defects and deficiencies in the structure. This subject has been brought to the attention of the authorities in nearly every report of this Institution, since its erection, when it was claimed to be a model of cheapness, a claim we have never seen disputed, though the economy of the structure may well be questioned. In the official visits to the Asylum, the use of restraint is noticed as follows: "a few patients had on the hand muffs, and a considerable number, owing to destructive and offensive habits, were clothed in canvass dresses," a fact, which if we adopt the opinion of the representative of the London Asylum, when speaking of the use of restraint at the Association, in Nashville, must be due to the inefficiency of the attendants.

The report of the Toronto Asylum, shows that there were present at date of last report, 659 patients. Admitted since, 297. Total, 956. Discharged recovered, 79. Improved, 27. Unimproved, 6. Eloped, 6. Died, 71. Transferred to other asylums, 136. Total, 325. Remaining under treatment, 631.

The Institution is now undergoing extensive repairs, and additions to its furniture and appliances are recommended, which will increase its comforts and conveniences. The relief from overcrowding, given by the transfer of so many chronic cases, has allowed of the reception of patients of the private class, and the Doctor recommends the policy of making such further provision as will attract to the Institution such as now seek admission to the private asylums of the States.

These efforts are seconded by the Inspector, who urges appropriations from the government to increase the facilities for the care of patients, and place the Institution upon an equal footing with the State institutions in our own country.

NOVA SCOTIA. *Report of the Nova Scotia Hospital for the Insane*: 1876. Dr. JAMES R. DEWOLF.

There were in the Hospital, at date of last report, 318 patients. Admitted since, 88. Total, 406. Discharged recovered, 44. Improved, 5. Died, 20. Total, 69. Remaining under treatment, 337.

Dr. DeWolf recommends the erection of a hospital at Cape Breton; the argument is based upon the advantages to be derived from readiness of access and the consequent greater use by the insane of that locality. One case admitted to the Hospital at Halifax was thirty-nine days in making the trip from Victoria County. The system of non-restraint is strongly advocated, and, it is claimed, is practiced. In support of the theory, extracts are introduced from the Commissioners' Reports for 1854, consisting of letters from many of the English asylum superintendents, asserting the entire disuse of mechanical restraint in the institutions under their charge. The article closes with a list of the Canadian asylums which are said to have adopted the same practice. In this list we notice the name of one institution, for which we have positive information of restraint having been ordered, within the past few months, in quantity beyond any possible surgical contingencies: We have no desire to do any one any injustice, but when the claim to the entire disuse of restraint throughout a country, or section thereof, is made, it certainly should be a truthful and honest one; and yet the Inspector states in his report that muffs were

in use in the London Asylum. We have no fault to find with those who carry out the system in perfect good faith. They are entitled to all the credit to be gained from the successful conduct of the plan. In these remarks there is no intention to impugn the good faith of Dr. DeWolf, even though he does repeat the assertion so often made before, that "restraint is synonymous with neglect." Can this be true in the few cases in which its use is admitted by all? The advantages of seclusion are stated, and its use advocated. By some means, unintelligible to us, this is not counted as a form of restraint, by our friends of the non-restraint system, but to the minds of many, it is a most formidable one with disadvantages far outweighing those of manual restraint. The subjects of labor, recreation, improvements and repairs conclude the report.

PRINCE EDWARD'S ISLAND. *Annual Report of the Lunatic Asylum, Charlottetown: 1876.* Dr. E. S. BLANCHARD.

There were in the Asylum, at date of last report, 63 patients. Admitted since, 10. Total, 73. Discharged recovered, 4. Improved, 1. Unimproved, 1. Died, 1. Total, 7. Remaining under treatment, 66.

Sixty applications were made for admission to the Asylum and but ten could be received. The plans for the new Asylum were prepared sometime ago, but as yet nothing has been done looking to the erection of the building.

ONTARIO. *Report of the Rockwood Lunatic Asylum: 1876.* Dr. JOHN R. DICKSON.

There were in the Asylum, at date of last report, 378 patients. Admitted since, 53. Total, 441. Discharged recovered, 17. Transferred, 28. Died, 18. Total, 63. Remaining under treatment, 378.

Dr. Dickson states the embarrassment he is under in making this report, from the doubtful position which the Asylum now holds. The question regards the transfer from the Dominion of Canada to the Province of Ontario, and the consequent pecuniary responsibility for improvements and repairs, many of which are of pressing importance. Since the date of the report we have received the news of the change to the Province of Ontario. This transfer was recommended by the Inspector in his last report; and it is believed will be of advantage to the Asylum, and add to its efficiency.

NEW BRUNSWICK. *Report of the Provincial Lunatic Asylum:*
1876. Dr. J. T. STEEVES.

There were in the Asylum, at date of last report, 257 patients. Admitted since, 99. Total, 356. Discharged recovered, 40. Improved, 12. Unimproved, 4. Eloped, 3. Died, 20. Total, 79. Remaining under treatment, 276.

Dr. Steeves records the pleasure and benefit received from attendance upon the meeting of the Association of Superintendents, in June last, and the advantages which necessarily accrue from such interchange of views. He also makes some judicious remarks upon the causation of insanity, regarding it in most cases as a complex matter, the culmination of a number of different concomitant influences, no one of which can be pointed out as the efficient one. The Institution is sadly overcrowded and feels the want of additional wings containing more single rooms, and of iron guards over at least a portion of the windows of the wards. These will insure against elopement and against injuries by jumping from the windows.

TRANSACTIONS OF SOCIETIES, REPORTS AND
PAMPHLETS.

Transactions of the American Medical Association: Vol. 27,
1876.

The meeting was held in Philadelphia, and from the associated circumstances, the number of delegates was unusually large. In accordance with custom, the larger part of the work was done in the various sections. The reports of some of them are very interesting. The one on Public Hygiene and State Medicine is the most voluminous, and is made up of special reports upon the climatology, water supply, and diseases incident to certain localities. Such reports can not fail to be of great value to the medical practitioners of the portions reported upon. The section on surgery listened to a paper upon Pott's disease by Prof. Louis A. Sayre, of New York, and to one on Pirogoff's amputation at the ankle joint, by Dr. Addinell Hewson, of Philadelphia. Dr. Buseys address on obstetrics and diseases of women and children, the advances and discoveries of the past year, is a full report upon the subject. Dr. Woodward's paper and the discussion following upon photographic micrometry of the blood, adds more facts upon which to base an opinion in this vexed question and one so important in criminal cases. The section upon practice devoted most of its time, aside from its discussion, to listening to Dr. L. Duncan Bulkley on arsenic in skin diseases, and Dr. Henry R. Rogers on cholera. Dr. Sims address as President of the Association has been presented and rendered familiar to the profession. The work of the secretary and of the printer has been well done, and the volume holds a creditable place among those previously issued.

Transactions of the Mississippi State Medical Association : 1876.

This is an interesting report and gives evidence of work and progress by the medical men of the State. The subject of diseases of the nervous system has received a due share of attention. There is a well written article on "Ramollissement" by Dr. Compton, Superintendent of the State Asylum at Jackson. Besides giving an extended account of the disease, its symptoms, prognosis and treatment, the Doctor devoted considerable attention to a consideration of perivascular spaces, describing them as a provision of nature for protecting the brain from blood pressure and congestion. This was omitted in the printing for want of space. We are always glad to record the labor of members of the specialty, particularly that done outside of their special field, in behalf of the general profession. It may be questioned whether all do their duty in this regard.

Ninth Annual Report of the State Board of Charities of the State of New York. Transmitted to the Legislature, January 14, 1876.

The report is a large volume of 730 pages. Of these the report of the Board occupies 31, and the tables 61, making a total of 92. The remaining 638 pages contain appended papers. Some of these are valuable and instructive, notably that by the Hon. William P. Letchworth upon "The Orphan Asylums, Reformatories and other Institutions of the State, having the Care and Custody of Children." In this article is given the location and description of the buildings, the specific objects of the charity, and notes upon the management, diet, occupation, dress, and mode of life of the inmates. The description frequently gains additional interest by the report of individual cases, or the reproduction of incidents occurring in the institutions visited. The paper

is prefaced by a condensation, under appropriate heads, of the information gleaned by the personal investigation of the Commissioner. Mr. Letchworth is doing a good work in thus looking after the interest of the children, and to his labor must be given, largely, the credit of the recent liberal and enlightened legislation in their behalf, which has resulted in removing them from the evil influences which surrounded them in the county houses. A supplementary report is made relating to the pauper children of New York county. In this the abandonment of the Institution on Randall's Island is recommended, and steps have already been taken in this direction.

Other members of the Board have participated in special labors assigned them, and Commissioners Hoguet and Low present a report upon "The Increase of Pauperism, by the Overcrowding of Population in illy-ventilated and badly drained Tenement Houses." Their report consists of a paper by Dr. A. W. Bell, editor of *The Sanitarian*, upon the subject specified. The article shows in a most conclusive manner the baneful results of the neglect of hygienic and sanitary laws upon the health, and the death rate of the tenement house population, and the immense pecuniary cost to the community, in money actually expended, and in the loss of productive labor. Commissioners Anderson and Deveraux present a report upon hospitals for the sick and insane. Their remarks preface a paper by Doctor Wilbur of the New York State Idiot Asylum, for a notice of which we refer our readers to the JOURNAL for January, 1877, pages 421 and 422.

This recommendation of the Board regarding the chronic insane is the reiteration of that of last year, that they be cared for in cheap and substantial structures, erected in connection with each of the State asy-

lums. Regarding tramps, the view urged by the Board, "of obliging them to work, and to render an equivalent, by their labor, for the aid they receive," has been adopted in certain counties, and found to work admirably. The number of persons applying for assistance is greatly reduced, and the whole subject, which seemed, not only troublesome to manage, but at times even dangerous to some communities, is now virtually settled. Let unanimous action be had through the State, and the tramp will either become a producer, or will change his stamping ground to some other State where he is dealt with more leniently.

The action of the Board, which has resulted in the enactment of the law removing the children between the ages of three and sixteen from the almshouses, can not be too highly commended. This is a blow struck at the crime and curse of pauperism, of the most effectual kind, and if fully carried out will practically destroy its hereditary character.

Eighth Annual Report of the Board of State Charities and Corrections of Rhode Island: 1876.

Forty-fifth Annual Report of the Perkins Institution and Massachusetts Asylum for the Blind: 1876.

This report is largely occupied with a memorial of its founder and director, Dr. Samuel G. Howe. He was born in 1801 and died in 1876. His life of three-quarters of a century measures a momentous period of the nation's and the world's history, and was marked by self-denying labors in behalf of oppressed and afflicted humanity. The most noted of these were his efforts in behalf of Grecian independence, the freedom of the slave, and the instruction of the blind. He also advanced the same interests when he made his report regarding idiocy and idiots in the commonwealth of

Massachusetts, a report which led to the establishment of schools for their elevation and instruction. As chairman of the Board of State Charities, he was but doing renewed service in his former field; there were other directions, however, in which equal success did not mark his course; this however, may not be taken as an indication that he was less earnest or less in the right, but that men are more surely aroused by appeals to their sympathy and by the calls of humanity, than by attempts to advance material interests in accordance with some partisan political view. This was one element of the failure of the scheme to annex San Domingo or induce the purchase of Samana. Still no confidence was lost in the high intent and lofty purpose of Dr. Howe. That he held a high place in public regard, that he was honored for what he was, morally and intellectually, and for the noble deeds of his life, is manifest by the testimonial before us; the citizens of Massachusetts, of all classes and conditions, did his memory honor. The Executive, the Legislature, the statesman, the author, all did homage to the man who labored so much, not for himself, but for his fellow-man. To no one was he more dear than to the pupil's under his charge, and there was no love dearer to him.

His labor has not fallen to a strange hand. His successor, Dr. Anaynos, had been long associated with Dr. Howe in the conduct of the Asylum. He reports the affairs of the Institution in a flourishing condition, discusses questions relating to education, to training, to the various theories of teaching, to the different kinds of labor appropriate for the blind, and recounts the progress made in printing books, and the additions to the somewhat limited library at the command of these unfortunates. During the year there have been 201

blind people connected with the Institution. At present the number is 155. These are collected from the New England States.

Tenth Annual Report of the Kansas State Penitentiary: 1876.

In this report Dr. Carpenter, Surgeon to the Prison, speaks of the difficulties attending the treatment of prisoners, and of the great tendency of men so situated to contract vicious habits and practices, which underlie and induce many of the physical ailments, which often result in insanity or confirmed idiocy. The inability to obtain admission for those who become insane, to the Asylum, thus compelling their treatment in the Prison, is another source of great trouble and anxiety. This results, too often, in confirming the lunacy which, under favorable conditions, might be successfully treated.

Note on the Administration of Phosphorus. EDWARD R. SQUIBB, M. D. [Republished from the Proceedings of the American Pharmaceutical Association: 1876.]

This article gives the indications for the use of phosphorus, the doses and the preparations, which in the author's opinion, are found most effectual.

"The more effective applications of phosphorus seem to be to the functional derangements of the nervous system, which are of an adynamic character, or, where organic or structural changes are slight, are temporary in character, or just commencing." * * * "But, perhaps the most successful of all its applications is to that large class of cases wherein nervous power is used faster than the material for it is supplied, or to the condition which results in nervous exhaustion before the occurrence of serious structural change." * * * "The remedial agency of phosphorus appears to apply most successfully to those changes which are general and not local, which affect the whole nervous system equally; changes which involve the relation of inferior supply to superior demand, before the integrity of the tissues are seriously or profoundly invaded, or invaded to such a degree as to make retrogression very

difficult. It appears, also, to have a special therapeutic effect in some forms of neuralgia (Thompson,) and in adynamic melancholia, in the nervous strain from overwork, and the nervous depression resulting from over-excitement." As regards the dose, "from 1-100 to 1-40 of a grain, three or four times in the twenty-four hours, may be given for weeks, or even months, without extraordinary care, but 1-12 is considered to be the largest safe dose, while the 1-20 to 1-30 of a grain need rarely be exceeded in the most active treatment to which phosphorus is applicable." With reference to the form of administration, "the general drift of the best observations seems to show that the use of phosphorus in the solid form should be abandoned, because the dose has to be larger, and the results are uncertain and treacherous, because more or less of the solid substance may be dissolved in the *primæ viæ*, or more or less may pass off in an inactive condition, according to the condition of the stomach, and the character of its secretions, and its contents at the time of administration." * * * "From all that has been written upon the subject it seems to be pretty well established that phosphorus should only be given in solution, and that the solvent used should be bland and not volatile, and should be capable of protecting the substance from oxidation for a reasonable length of time, when kept from light and air. Such a solvent has been found in cod liver oil, and the testimony in regard to the solution in cod liver oil is, up to this time, so favorable as to indicate that all other preparations should be abandoned." The formula is as follows :

Phosphorus, well dried,.....	1 part.
Cod liver oil,	99 parts.

The steps of the preparation we omit.

"Perhaps the best and most ample means of giving the solution is by a further definite dilution with cod liver oil."

Other eligible combinations and preparations are noticed. As disproving the assertions of Thompson, "that phosphorus can never be effectively employed but in its free and most active state," the results of the use of "*acidum phosphoricum dilutum*" in this Asylum, and recorded in this JOURNAL, October, 1869, are referred to. We may say in this connection that the ex-

perience there recorded has been fully confirmed by subsequent use, and that it still forms a component, and most useful part of our nerve tonics. The whole paper, from which we have made the above extracts, is highly interesting, and is a valuable addition to the hitherto recorded knowledge of this now popular remedy.

The American Medical Association and the Pharmacopœia of the United States of America, by Dr. E. R. SQUIBB.

This paper is an extract from the minutes of the American Medical, and from the Pharmaceutical Associations, and suggests a plan of action for the convention for revising the decennial edition of the Pharmacopœia.

Dr. Wood, of Philadelphia, presents a pamphlet entitled the "United States Pharmacopœia and the American Medical Association," in which the former method of revision is favored. The object of these publications is to interest the members of the Medical and Pharmaceutical professions in this subject. Copies can be obtained from the authors, Dr. E. R. Squibb, Brooklyn, and Dr. H. C. Wood, 1631 Arch St., Philadelphia, Pa.

Obstetrics and Gynæcology one hundred years ago; An introductory lecture to the class of midwifery and diseases of women and children, in the University of Edinburgh, by Prof. ALEXANDER RUSSELL SIMPSON, M. D. (Reprinted from the *Obstetrical Journal*, December, 1876.)

The lecturer gives a pleasant account of his visit, as a delegate to the Medical Congress, held in Philadelphia, during the Centennial period. He describes the daily division of labor in the Congress, and passes to notice the instruction given the student in the branches of obstetrics and gynæcology in the medical schools of a hundred years ago. He quotes from the lectures of Prof. Young, the incumbent of the chair of obstetrics

in the University of Edinburgh at that time. These quotations convey to the reader a better idea of the state of this branch of science than any descriptive account that could have been given. In closing he awards to America the credit of the discoveries and labors of McDowell and of Sims, which are spoken of as among the greatest triumphs of modern surgery.

Propositions and Resolutions of the Association of Medical Superintendents of American Institutions for the Insane. Published by order of the Association. Philadelphia, 1876.

On the importance of the Uterine Ebb as a factor in Pelvic Surgery. By HORATIO R. STORER, M. D. (Reprinted from the *Edinburgh Medical Journal*, January, 1877.)

Seventh Annual Report of the New York Ophthalmic and Aural Institute : 1876.

Fifth Annual Report of the Roosevelt Hospital, New York : 1876.

The relations of Medicine to Modern Unbelief. A valedictory address, by RICHARD O. COWLING, A. M., M. D. Delivered to the Medical and Law graduates at the thirty-ninth commencement of the University of Louisville, March, 1876.

Acts for the organization of the State Asylum for the Insane at Morristown, New Jersey, and By-laws for the government of the same.

Charter, Constitution, By-laws, List of Officers, Members, etc., etc., of the Medico-Legal Society of the city of New York.

An appeal for the Insane Poor of the County Houses in Pennsylvania. JOHN CURWEN, M. D. Superintendent, Pennsylvania State Lunatic Hospital, Harrisburg, Penn.

This appeal was prepared by direction of the Medical Society of the State of Pennsylvania, at its session in Philadelphia, May, 1876.

BOOK NOTICES.

The Tonic Treatment of Syphilis. By E. L. KEYES, A. M. M. D., Adjunct Professor of Surgery and Professor of Dermatology in the Bellevue Hospital Medical College; Surgeon to the Bellevue Hospital; consulting Surgeon to the Charity Hospital; consulting Dermatologist to the Bellevue Bureau of out-door relief; &c.

In this small volume the author presents, in a very practical way, his views on the treatment of syphilis, and especially on the advantage of administering minute doses of mercury. These views are somewhat new, and we think, in advance of those published in 1874, in the very excellent work of Drs. Van Buren and Keyes, and indeed may be profitably read as a supplement to that work. The author claims for mercury when administered in small doses, that, without impoverishing the blood, it controls syphilitic symptoms, and causes an increase in the number of red blood globules, and consequently is a tonic both in syphilitic and non-syphilitic cases. The process of blood counting by which the author arrived at the above conclusions, is given in full.

That part of the work which gives directions for the treatment of syphilis is especially valuable, and contains many important suggestions drawn from the large experience of the author.

The book is tastefully printed by D. Appleton & Co., and every practitioner may spend profitably and pleasantly a few hours in reading it.

SUMMARY.

Dr. Richard Gundry the Superintendent of the Athens Hospital, formerly the South Eastern Ohio, has been appointed to a like position in the Columbus Hospital.

—Dr. Charles L. Wilson has been appointed Superintendent of the Athens Hospital.

—Dr. A. E. Macdonald, Superintendent of the New York City Asylum, on Ward's Island, has been appointed Professor of Medical Jurisprudence, Medical Department, University of the city of New York.

—Dr. Daniel H. Kitchen, Chief of Staff of the City Hospitals on Blackwell's Island, New York, has been appointed Superintendent of the New York State Inebriate Asylum, at Binghamton, N. Y.

—Dr. J. H. McBride has resigned the position of first Assistant Physician to the Northern Wisconsin Asylum at Oshkosh, to engage in general practice.

—Dr. Charles M. Hawley, senior Assistant Physician of the Cleveland Hospital for the Insane, has, after five years of service, resigned his position to enter upon the general practice of his profession, and Dr. Jones has been appointed to the vacancy thus created.

—Dr. J. C. Bucknill has removed to London, 39 Wimpole St., where he has opened an office for consultation practice.

—Dr. D. Tilden Brown, Superintendent of the Bloomingdale Asylum, has resigned his position and gone abroad on account of the failure of his health.

—Henry Landor, M. D., M. R. C. S., Eng., Superintendent of the London, Ont. Asylum, died on the 6th of January, 1877, of diabetes mellitus in the sixty-second year of his age.

—Dr. R. M. Bucke, Superintendent of the Asylum at Hamilton, since June, 1876, has been appointed to the vacancy created by the death of Dr. Landor.

—Dr. J. M. Wallace Superintendent of the Asylum for Idiots at Orillia, since September, has been appointed Superintendent of the Asylum at Hamilton.

—Dr. Beaton from Stayner, has been appointed to the charge of the Asylum for Idiots at Orillia.

—We have received a short article containing statistics of the cost of building asylums in England. It has been claimed that accommodations are provided at a much less cost than in this country. This of course was to be expected as it is a matter of general knowledge, that all building operations are carried on much cheaper in England and in the older countries than here. There are however, other reasons besides those belonging to the law of supply and demand, in labor and material, which have a marked effect upon the cost of asylums. Two of these causes lie upon the surface and are apparent even to the casual observer, first, the institutions of the Old World are built and arranged for the pauper class alone, and not for all the people of the State; again the question is not always one of quality or appropriateness of accommodations, but of quantity for the least

money, and hence we have large associated dormitories in the foreign asylums instead of the single rooms, which are not only desirable, but demanded by the people of this country. The original cost of twenty-one asylums averages £206 or a little more than \$1,000 per capita. This has been considered, till during the inflation since the war, a fair estimate in this country, and this price will no doubt soon be reached again.

FIRE AT BRATTLEBORO ASYLUM.—On Tuesday morning, February 13, at seven A. M., in the midst of one of the worst gales of the season, the alarm of fire startled the inmates of the Asylum. This originated in the stable, which stood in the rear of the west wing, and in close proximity to the building, and spread from this to the carriage house, straw barn and wagon shed, which were soon a mass of fire. The wind from the northwest drove the flames toward the main Asylum building, and for a time all were in imminent danger of destruction. Upon the other side of the stable stood the new boiler-house, and the upper part of this building soon yielded to the flames, which next threatened the laundry buildings, and these yielding, the whole Institution, from the north wing. The prospect was fearful, and, for a time, the danger was sufficient to paralyze exertion. All employés, firemen, and citizens from the village worked with judgment and decision, and by their strenuous exertions kept the fire from spreading to the Hospital buildings proper. There was nothing like a panic, and no exhibition of undue excitement. The fire is supposed to have caught from the accidental burning out of the chimney in the stable. Besides the buildings, most of the vehicles belonging to the Asylum, were destroyed, as also the contents of the storehouse and vegetable cellar. These include about two tons of butter and two thousand bushels of pota-

toes. The insurance was \$7,800, and the whole loss is estimated at \$25,000. Dr. Draper, the Superintendent, was absent from home in attendance upon Court.

TREATMENT OF SICK HEADACHE.—Dr. Kinsman says: I prescribe to patients, when they arise in the morning and find one of their headaches approaching, thirty grains of bromide of potassium, dissolved in a gill of cold water. This is to be drunk at once, and complete quiet maintained for an hour; at the end of this period, if the pain still continues, the dose is repeated, and rarely do I find a third dose required. This is administered if demanded. This course produces a cessation of pain in all cases in which directions are carried out. The capacity for study or labor to full extent is not restored, but there is a relief from suffering.

The fluid extract of ergot is also used with some success, but it is liable to cause vomiting, and it is so distasteful to many that they are unable to use it. Tincture of digitalis also seems in some cases to be of value.

In the closing stages of hemierania I have found morphine valuable, but when administered early I have never derived benefit, being followed by distressing sickness. Codeia in half grain doses every hour produces the best effect in my case. Whisky or some other form of alcoholic was recommended by Anstie, and by Inman, but in all cases, if the quantity taken is followed by the first symptom of narcosis, the patient is made worse. This condition is indicated by numbness of lips and flow of saliva. This mode of treatment is based on the view that alcohol has a twofold action, stimulant primarily, narcotic secondarily. This agent can be so administered as to act only as a stimulant.

The application of heat and cold externally is also of value. Heat I have most commonly found useful.—*Ohio Med. Recorder.*

INSANITY AND SPIRITUALISM.—"A Clergyman" writes to the *Daily News*:—"I was very much struck with a statement published by you some time ago, on Dr. Winslow's authority, that in America there were 10,000 lunatics who were made insane by spiritualism. This serious statement went 'the round' of the papers, and I do not wonder that the persons chiefly interested instituted an inquiry. The results of that inquiry I have before me, and they are of such a nature as to deserve the widest possible publicity. There were in America last July eighty-seven asylums for the insane, with less than 30,000 patients. To the medical superintendents of each of these institutions the following inquiries were sent by Dr. Crowell last December:—'1st. The number of

patients admitted to or under treatment in your institution during the past year; or if this has not yet been ascertained, then during the previous year. 2d. In how many cases was the insanity ascribed to religious excitement. 3d. In how many, to excitement caused by spiritualism.' From sixty-six, replies were received, but only fifty-eight fully replied to the questions. These fifty-eight, however, account for over 23,000 out of the total number of less than 30,000, and the figures given show 412 insane from religious excitement, and fifty-nine from spiritualism. I could give you interesting information concerning this subject, gained at first hand from the medical superintendents' reports, but I only wish to correct a gross and grotesque blunder, and will therefore only trouble you with one statement; it is from Dr. Nichols, Superintendent of the Government Hospital for the Insane at Washington, and is as follows:—"I see a paragraph, attributed to Dr. Forbes Winslow, is going the rounds of the newspapers, stating that there are ten thousand lunatics in the United States who were made insane by spiritualism. My observation leads me to suppose that there may be one per cent. of truth in that statement. Now, although we may not care about spiritualism, we are all supposed to care about the truth; and one per cent. of truth is too low a proportion, even in these days. Allow me to add that as every paper in the country thought it right to circulate the blunder, I trust every paper will think it equally right to circulate this correction."

—The thirty-first annual meeting of the Association of Medical Superintendents of American Institutions for the Insane will be held at the Lindell Hotel, in the city of St. Louis, Missouri, commencing at 10 A. M., of Tuesday, May 29, 1877.

Resolved, That the Secretary, when giving notice of the time and place of the next meeting, be requested to urge on the members the importance of prompt attention at the organization, and of remaining with the Association till the close of the sessions.

By standing resolution, the Trustees of the several institutions are invited to attend the meetings of the Association.

When an assistant physician represents an institution, a notice stating that fact should be sent to the Secretary.

JOHN CURWEN, M. D., *Secretary.*



